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Incorporating *International Commerce*

JANUARY 8, 1973

Commerce Today

Coming Developments in Business and Technology

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1973

Newsmemo

Insurance premiums on commercial fishing vessels have gone clear over the horizon. So say U.S. fishing industry people, and they are meeting in Washington this week with insurance executives and government officials to discuss the high rates and, it is said in some cases, the unavailability of adequate coverage at any cost. Results of the meeting can be obtained from: Morton M. Miller, Chief, Market Research and Services Division, National Marine Fisheries Service, Washington, D.C., 20235.

The Common Market Six are now the Common Market Nine, and this adds up, for U.S. exporters, to both opportunity and challenge. So said Bureau of International Commerce specialists in our columns recently. The opportunity comes from the expected growth of an enlarged market area; the challenge from the stepped up integration of already powerful competitors. The full story was on pages 12-15 of our Oct. 16 issue.

It should be that Indians living on Puget Sound would offer rather than receive advice on handling fish. But in this case it is the processing and marketing of their salmon catch that has brought the Skokomish Tribe together with the Pacific Fishery Products Technology Center of the National Marine Fisheries Service. The tribe, striving to overcome a 30 percent unemployment rate, is building a plant to process salmon.

A six-month trade total of $14.5 million between the U.S. and another nation is not remarkable, but the growth it represents is. The other nation is the People's Republic of China. In 1970 the 12-month total was $1,000. We bought $14.1 million from China in Jan.-July 1972 and sold $340,000. But applications to ship out an additional $12.7 million, chiefly in commercial aircraft jet engines, were approved from July through September. Major imports from China include $6 million in crude materials such as bristles, raw silk and camel hair, $4.7 million in manufactures--jewelry, antiques, leather goods, furskins, and $2.4 million in food, beverages and tobacco.

In case you didn't notice, 1973 was slightly late arriving this year because 1972 was the longest year in the history of recorded time. Scientists at Commerce's National Bureau of Standards added a leap second before 7 p.m. EST on December 31 to the nation's atomic clock at the Bureau's Boulder, Colo., laboratory. Timekeepers around the world turned back their atomic clocks that second under an international agreement. A first leap second was added June 30. Added to the extra day February 29, these two leap seconds made leap year 1972 the longest on record. Leap seconds are needed every 6 to 12 months to synchronize our time with the earth's rotation.

The U.S. started the new year with a population of more than 210 billion. Census officials estimated that the population for 1:01 a.m., Jan. 1, 1973, was 210,194,312. During 1972, the net gain in population was estimated to be 1.6 million compared with 2.0 million in 1971 and 2.2 million in 1970.

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Vol. III, No. 7, January 8, 1973

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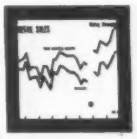

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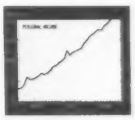

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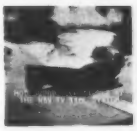

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COVER: *This first issue of 1973 carries the dates the next 26 issues of* Commerce Today *will be published. The editors hope that readers will continue to look forward to each issue reporting on coming business developments in a new year expected to see personal income reaching the trillion dollar mark. See story on Page 7.*

ECONOMIC
HIGHLIGHTS

Automobile Sales Rolling At Full Speed; Another Strong Year Anticipated In 1973

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

Sharply rising sales indicate that the automobile industry is heading into 1973 with excellent prospects for further gains in sales and production. This expectation of a third consecutive year of high-level activity in one of the nation's most important industries is consistent with the rising employment and growing incomes generated by an expanding economy.

Sales of automobiles increased strongly in the third quarter of 1972 and recent figures indicate that another advance occurred in the final quarter of last year. In response, automakers stepped up production near the end of 1972, as shown in the first chart, and they set their schedules for another jump in production in the first quarter of this year.

While production has often followed an irregular pattern, it is nevertheless highly significant that first quarter output is scheduled to exceed the present record set in 1965. As the second chart illustrates, total retail sales of new cars are considerably above the 1965 level, but only recently have sales of domestic cars moved above their 1965 level. Total sales for 1972, including imports, were slightly below 11 million units, and will probably exceed 11 million in 1973.

U.S. production may increase more than sales in 1973 since the imports' share of the market has been declining for about 18 months. The imports' share of the U.S. retail sales, shown in the third chart, had been rising steadily over the years until 1971 but it has generally declined since then. The new low-priced American-made cars are competing effectively with imports, most of which are in the low-priced class. Moreover, the currency realignment of December 1971 has made American autos more attractive in price relative to imports.

The foreign producers' declining share of the U.S. auto market means that more U.S. production is being utilized in satisfying the U.S. demand for cars. This is a reversal of the situation that prevailed from the mid-1960s until 1971, when the U.S. auto market was increasing but U.S. auto production was not.

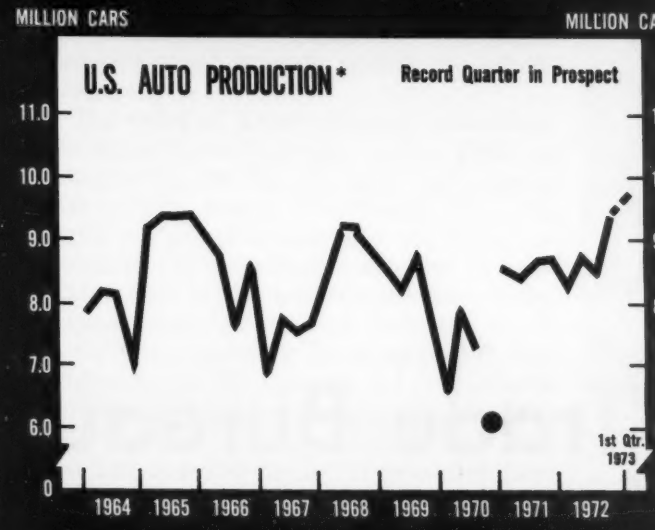
Americans generally have been switching to lower-priced automobiles in recent years. As the fourth chart indicates, the percentage of buyers purchasing medium-priced automobiles has declined while the low-priced cars have increased their share of the market. As noted above, imports became quite popular; but American-made low-priced cars have made highly important gains since their introduction 3½ years ago.

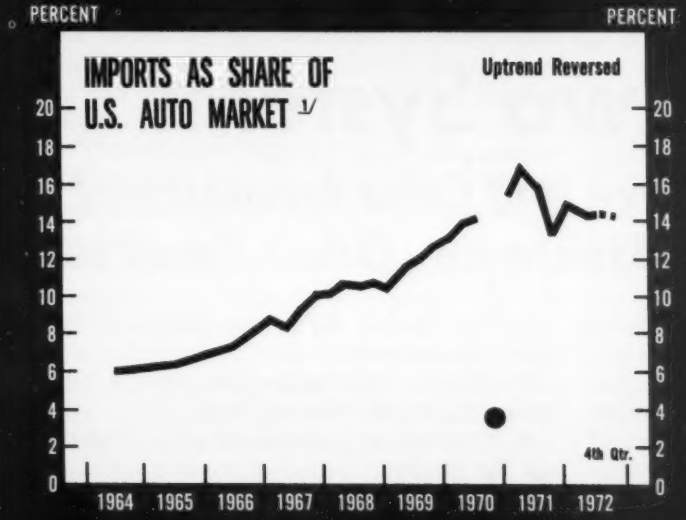
Other economic data

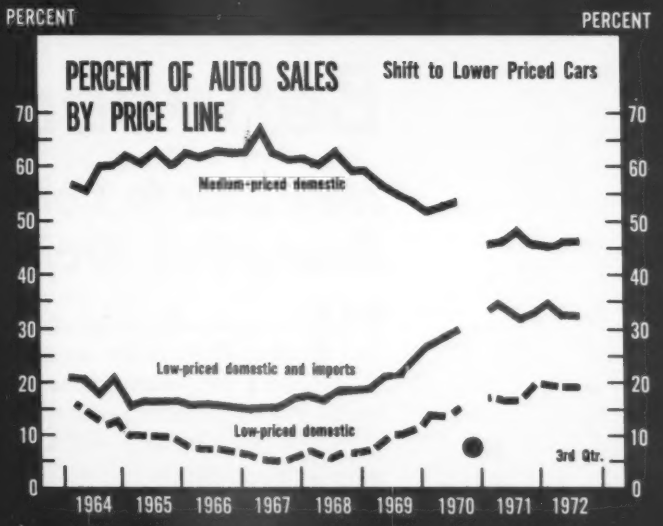
Retail sales of the types of merchandise associated with gift-giving registered a strong increase during the 1972 Christmas season compared with a year ago. The unusually large increase in the final week reflected additional shopping time in 1972 (since Christmas was on Saturday in 1971 and on Monday in 1972).

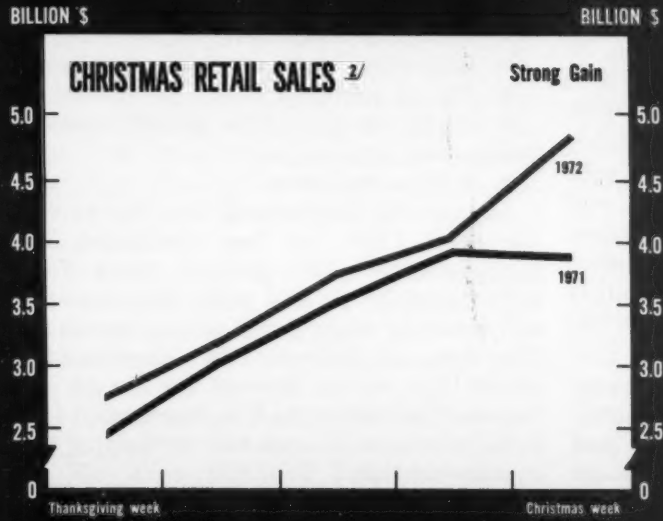
The continuation of the strong uptrend in the leading indicators supports the generally accepted view that the economy will continue to expand at a rapid pace throughout 1973.

Latest Indicators









* Annual rate

● Fourth quarter of 1970 excluded because of auto strike.

All data seasonally adjusted except Christmas retail sales.

1/ Annual data 1964-66; quarterly data beginning in 1967.

2/ Sales of general merchandise, apparel, furniture, appliance, and department stores.

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Vol. III, No. 7
January 8, 1973

East-West Trade Bureau Seeks Workable Contacts Between Two Systems

New Unit In Commerce Will Offer Promotional, Analytical, Project Assistance, Other Services

"It is apparent that for the United States East-West trade is an idea whose time has come. When two such different economic systems come together, however, you have a very difficult problem of interface.

"We have therefore set out to devise a brand new set of bearings and lubricants to help make this interface become a workable contact," explained Steven Lazarus, as he described the new Commerce Department Bureau of East-West Trade that he heads.

Establishment of such a bureau should not trigger expectations that U.S. trade with Eastern Europe and Mainland China will burgeon into the billions overnight, Lazarus cautioned. Rather, progress will be achieved on a gradually ascending curve as hundreds of firmly-based individual trading relationships are developed.

Up to now the level of U.S. trade with the East has been low—last year the two-way flow was less, for example, than that between the U.S. and the Philippines—because of unique difficulties and special conditions:

► The major differences between the economic systems

► Equally important differences in the legal framework affecting trade

► Problems of business logistics, of moving the goods

► Obstacles related to national security and export controls

► Shortages of hard currency in the East

► Financing difficulties

► Inadequate trade communication links

► Pricing problems

► Dearth of up-to-date, reliable market information

► Political influences

Against this background, the Bureau of East-West Trade has been established. It recognizes that the primary force for achievement in this field is the independence and creativity of the American businessman. Therefore, it believes, the Government should in no manner preempt him nor get in his way. The role of the U.S. Government is, in the phrase of Lazarus, that of "helping to equalize the odds."

The bureau has four offices: Export Control, East-West Trade Analysis, East-

West Trade Development, and Joint Commission Secretariat. The first has existed in the Department of Commerce throughout the post-World War II period; the others are new.

The Office of Export Control administers the Export Administration Act of 1969, as amended by the Equal Export Opportunity Act of 1972. Among other things, this legislation authorizes control over the export of products and technology considered to have significance to the security interests of the nation. Export Control maintains the list of such items, including those controlled multilaterally by the U.S., its NATO partners, and Japan in an arrangement called COCOM.

The Office of Export Control has been working to reduce the list of restricted items and to liberalize its general licensing procedures. In this effort it is seeking the advice of industry, both informally and formally, the latter through technical advisory committees that are being established pursuant to the recent amendments to the Export Administration Act.

The Office of Export Control also screens and reviews proposed exchanges of science and technology with the nations of Eastern Europe.

The Office of East-West Trade Analysis is engaging in comprehensive studies of the problems inherent in trade between the state-controlled and free-market economies. Results of studies should provide basic information for developing an economic and policy framework in which trade can expand in an orderly manner reflecting interests of the U.S., its trading partners, and third countries. Major areas for analysis include U.S. trade opportunities and competitiveness, ability of Eastern countries to earn foreign exchange, financing of trade, export-pricing policies in state-controlled economies, technology transfers and barter or switch agreements. Working with other knowledgeable government agencies, specialists in this office apply quantitative analytical techniques to the study of such issues.

The Office of East-West Trade Development offers direct help to individual U.S. business clients through five divisions: 1) three groups of country specialists; 2) a trade development assistance service; and 3) trade promotion activities designed especially for contacts with the centrally-planned economies.

Businessmen may contact the Bureau by writing: Director, Bureau of East-West Trade, DIBA-500, U.S. Department of Commerce, Washington, D.C., 20230, or by calling 202-967-2076.

NEW WARSAW TRADE OFFICE—*The first U.S. Trade Development and Technical Information Office in Eastern Europe opened Nov. 4 in Warsaw, Poland. Deputy Assistant Secretary of Commerce Marinus van Gessel presided at the opening ceremonies; he is flanked by catalogs from more than 300 U.S. construction equipment and materials firms, on display at the inaugural commercial event.*

The country specialists are assigned in three geographical groupings, one for the Soviet Union, a second for the other Eastern European nations, and the third for the People's Republic of China and other Asian areas. They analyze business trends and current developments in individual countries to develop appropriate policy recommendations and to advise U.S. firms interested in commercial ventures. They also prepare publications with timely and useful information for businessmen, and they initiate and pursue, through the U.S. Commercial Offices overseas, representation on behalf of U.S. business interests.

The trade development assistance service is designed as a "how-to" operation: offering advice to U.S. firms on how to make useful contacts in East-West trading, how to prepare for negotiations, how to understand possible contract clauses, how to arrange alternate financing, etc. The staff includes businessmen who have themselves had years of international experience, as well as persons familiar with the ins and outs of U.S. Government procedures.

The trade development assistance service aims to help U.S. firms compete in specific business transactions. This case-by-case assistance can take a number of forms. For instance, program specialists may call cer-

AT BUCHAREST INTERNATIONAL TRADE FAIR—*U.S. Exhibition last October displaying industrial and scientific instrumentation equipment of 24 firms drew Romania's President Nicolae Ceausescu (second from right at top) and many of the country's key technical and scientific managers.*

tain major business opportunities to the attention of U.S. firms active in the field of interest; arrange contacts between U.S. businessmen and appropriate foreign officials; suggest methods for obtaining U.S. Government approvals and clearances, and even join in the discussions between U.S. firms and East European trading organizations when requested and where appropriate.

The trade promotion division operates overseas, directing such events and facilities as trade missions, commercial exhibitions, business information offices and regional trade development centers. The Department of Commerce has built up a reservoir of experience and trained personnel to handle these marketing techniques, and is tailoring its approach to meet the specific market opportunities in selected sites in East Europe and Asia.

A Trade Development and Technical Information Office has recently opened in Warsaw, Poland. It is providing visiting American businessmen with marketing information and facilitating appointments for them with Polish officials. Promotion of a wide variety of U.S. products is planned, through catalog shows, single company displays, technical seminars, and businessmen's workshops. Technical information on American industry will be available to Polish businessmen.

Plans have been completed for a Regional Trade Development Center in Vienna, the gateway city for much East-West trading, and plans for an expanded commercial office in Moscow are moving forward swiftly.

Another major operating unit within the Bureau of East-West Trade is the **Office of the Joint Commission Secretariat.** This office provides the staff support for the U.S. Joint Commercial Commissions with the USSR and Poland—and with other countries as such commissions may be established. The two existing commissions were established during President Nixon's visits to the Soviet Union and Poland in the spring of 1972.

Working through these joint commissions, U.S. Government officials were able to negotiate trade agreements and understandings with the Soviet Union and Poland. Any problems related to the carrying out of these agreements will be handled through the commissions. The Secretary of Commerce is the U.S. Chairman on each commission, and the Director of the Bureau of East-West Trade is the U.S. Executive Secretary.

This office will also coordinate and expand the Bureau's relationships with non-governmental groups and organizations involved in the holding of seminars, conferences and training programs on East-West trade and will manage an expanded publications and reports program in this field. It will also function as the initial interface with U.S. firms desiring to enter the field of East-West trade.

Reviewing the aims and functions of his organization, director Lazarus said that a unique and specialized Bureau of East-West Trade can be of considerable utility to the U.S. private business community in the early stages of a developing trading relationship.

Then he added: "If it does its job well, in about five years it can cease to exist as a separate entity because by that time East-West trade will have become an accepted and normal sector of U.S. international commerce."

U.S. Citizens Nearing Trillion $ Paycheck

Personal Income Rises $7.5 Billion Average A Month; May Top Trillion Level By March

Personal income is growing rapidly as the economy expands and it will soon touch the trillion-dollar mark.

In November, according to Commerce's Bureau of Economic Analysis, personal income rose by $8.7 billion over October to a seasonally adjusted annual rate of $972.5 billion, only $27.5 billion below the trillion-dollar level. The November annual rate was $93 billion above that for November 1971.

Dr. Harold C. Passer, Assistant Secretary of Commerce for Economic Affairs, noted that personal income has gone up an average of more than $7.5 billion a month on an annual basis for the last 12 months, and that it will probably hit the trillion-dollar level by month of April.

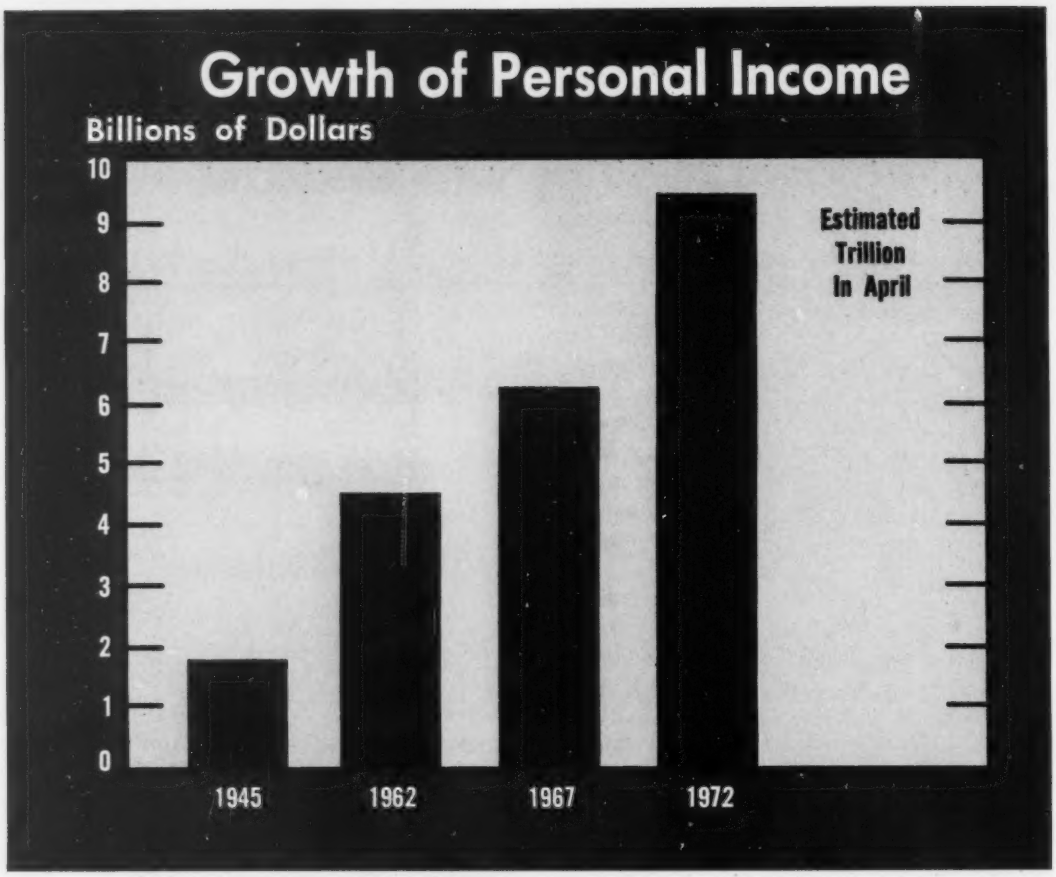
Personal income embraces the broad spectrum of payments to individuals, including the following main categories:

Total wage and salary disbursements; proprietors' income, both business and professional; farm; rental income of persons; dividends; personal interest income; and transfer payments, consisting mainly of governmental payments for Social Security, direct relief, and veterans' payments.

Includes deductions

In arriving at the personal income total, employees' payroll deductions for Social Security are deducted.

The U.S. economy, as measured by Gross National Product, reached the trillion-dollar



level almost exactly two years ago—on December 15, 1970. That milestone was marked by a ceremony in the Commerce Department, in which President Nixon participated. GNP is a dollar measure of the goods and services produced by the economy. In the third quarter of 1972, it reached an annual rate of $1,164 billion.

The GNP consists of four major sectors: purchases of goods and services by consumers; private domestic investment; net exports of goods and services (net exports consists of exports offset by imports and thus can be a plus or minus figure); and purchases of goods and services by Federal, State and local governments.

Rapid growth rate

Personal income in the United States has grown at a very rapid rate since World War II.

Here are the personal income totals for selected dates: 1945, $171 billion; 1962, $443 billion; 1967, 629 billion; and the third quarter of 1972, an annual rate of $940 billion. Although part of these gains are attributable to inflation, the gain in actual purchasing power is still very impressive.

There have been wide variations at times in the rates of increase among the various components of income. For example, wages and salaries paid during the first 11 months of 1972 were 9½ percent higher than during the corresponding period of 1971; but dividends were up only about 3 percent. Farm income was up about 10½ percent. The small increase in dividends demonstrates the effectiveness of the voluntary dividend restraint program, which is part of the New Economic Policy announced by President Nixon in mid-1971. The dividend program, which is administerd by Commerce, generally limits dividend increases for 1972 to 4 percent of the amount paid in 1971. Thus, dividends are well within the guidelines even though a considerably larger increase normally would be expected in a period of strong economic expansion.

Since World War II, transfer payments have multiplied more than 16 times—far more than any other personal income component.

This has been due in large degree to substantial increases in payments for old age, survivors, disability, and health insurance benefits.

Taking more home

Disposable income, the term used for the amount a person has to spend, is computed by deducting personal taxes and certain other items. This "take-home pay" also has increased at an astronomical rate over the years: 1945, $150 billion; 1962, $385 billion; 1967, $546 billion; and the third quarter of 1972, anannual rate of $799 billion.

Stated in constant 1958 dollars, disposable personal income still has more than doubled since World War II. Here are the constant dollar figures: 1945, $229.7 billion; 1962, $367.3 billion; 1967, $447.5 billion; and third quarter of 1972, $579.6 billion.

As might be expected, the record since World War II shows that people have spent most of their disposable personal income. Disposable personal income is broken down into personal consumption expenditures and savings. Here are some figures, stated in current dollars, for these components of disposable personal income.

Personal consumption

Personal consumption expenditures: 1945, $121 billion; 1962, $364 billion; 1967, $506 billion; and the third quarter of 1972, an annual rate of $748 billion.

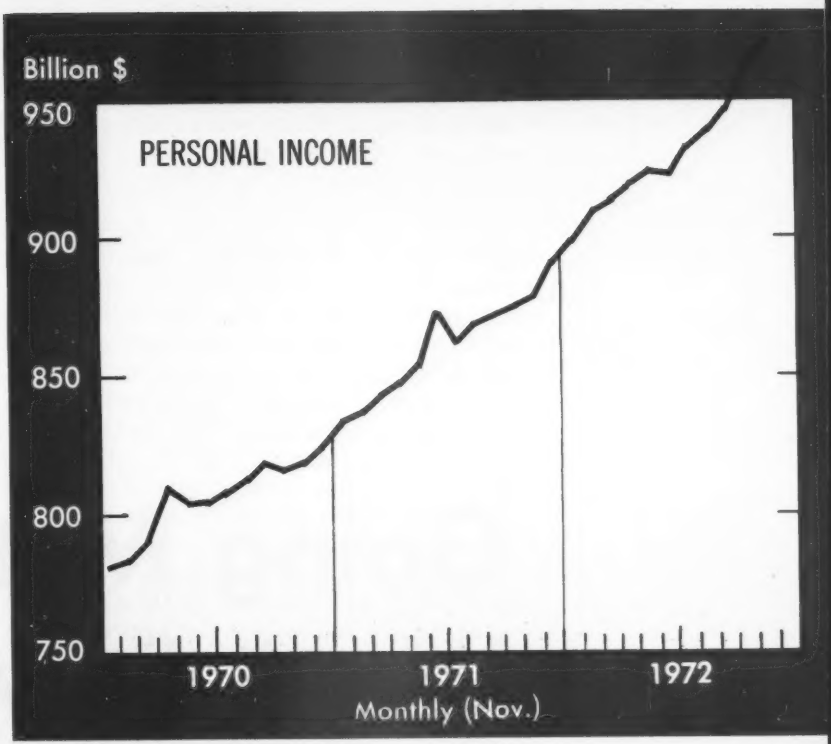
Personal savings: 1945, $29.6 billion; 1962, $21.6 billion; 1967, $40.4 billion; and the third quarter of 1972, $51 billion.

During the acute shortage of goods during World War II, personal savings rose sharply, reaching a peak in this period of $37 billion in 1944.

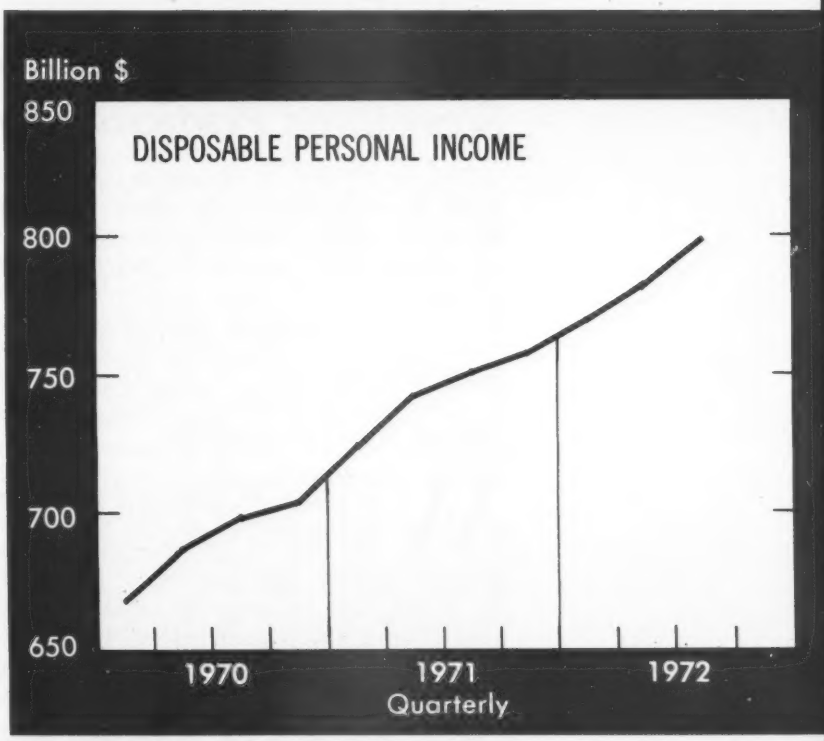
After the war, when a new supply of goods and services appeared, savings dropped. It was not until 1967 that savings topped, in current dollar totals, the level of 1944, when the dollars actually were far more valuable.

For a long period of time, wage and salary disbursements have fluctuated at around 67 or 68 percent of total personal income. Since World War II, wage and salary disbursements by Governments have increased 388 percent. This compares with 978 percent for the service industries. The latter rise reflects the vast increase in the service industries during the postwar period.

—Bureau of Economic Analysis



GOING OFF THE TOP—*U.S. personal income has risen out of sight on the old charts, and is expected to surpass the trillion dollar mark in early spring.*



TAKE-HOME PAY—*The most meaningful measure of purchasing power, disposable personal income, continues the steady rise that has caused it to more than quintuple since World War II.*

Going Metric Alone Won't Solve Nation's World Trade Problems

But Planned Conversion Combined With Better Standards Participation Seen Rational Stance

This is another in the series Commerce Today *is publishing on the impact expected should the nation eventually convert its present measurement system to metric. It is excerpted from a paper prepared for the University of California conference on the "Impact of Metric Changeover On Packaging and Allied Industries" at San Francisco by Dr. Lawrence M. Kushner, Acting Director, National Bureau of Standards.*

What must be clear is that a conscious decision on metrication on the part of the American people is late in coming. The majority of people of the world, the majority of nations, were already using metric units before World War II. All the rest of the industrial nations have already made their commitments to go metric or have, in fact, already converted.

What are some of the gross facts which bear on the metric issue?

- First, whatever the relative merits of metric, it has won overwhelming international approval. Even in the U.S., since 1893, the customary units for length and weight, the inch, yard and pound, have been defined in terms of the meter and the kilogram.
- Second, everyday use of metric units is rising steadily here, as elsewhere. The pharmaceutical and roller bearing industries have gone metric. Most recently, there has developed a strong trend toward metric conversion among industries which sell finished products on the world market. The John Deere Company, Caterpillar Tractor Company, and IBM have all announced intention to convert. School children are taught metric in math and science. Virtually all of the scientific disciplines and most engineering fields as well use metric language predominantly. A large fraction of U.S. packaged goods are dually labeled. And it is estimated that some 23 percent of the cars on U.S. highways, including some popular Detroit models, contain at least some metric parts.

• Finally, and most important, there is the changing pattern of U.S. export trade toward high technology products and services, and the rise of U.S.-based multinational corporations and the rising challenge of Europe and Japan in the international market.

This brings directly to the problem the United States is facing in international trade.

The truth is that old assumptions about American technology are in serious question. The most critical and immediate problem for U.S. technology to face up to today is that the United States is losing its dominant position in the markets of the world. The balance of trade has turned to the minus side in the ledger for the first time in this century. American productivity—in industrial output, quality and quantity, and in the service sector of the economy—is woefully

Dr. Lawrence M. Kushner
Acting Director, National Bureau of Standards

weak and being challenged by a number of nations. All of these add up to a very real challenge to the vitality of our economic system.

Before being named Secretary of Commerce, Peter G. Peterson made public an important report on "The United States in the Changing World Economy," which he had presented to the President and the White House staff. Here are briefly some of the points the Peterson Report made.

First, it becomes obvious that over the past two decades the United States' share of the world GNP has been shrinking; from nearly 40 percent in 1950 to only slightly more than 30 percent in 1970—not by itself bad—the rest of the world is doing better while we, too, in absolute terms are also growing.

Net deficit

The challenge to the U.S. in the world marketplace is symbolized by a net deficit in the balance of trade. Whereas the average annual growth rate in imports exceeded the growth rate in exports only slightly in the early 1960s, by 1971 the growth rate of imports had climbed to triple the growth rate in exports. While U.S. manufacturing productivity rose 32 percent from 1960 to 1970, Japanese productivity almost tripled. While U.S. exports of manufactured goods rose 110 percent, Japanese exports quadrupled.

Overall, United States industry performs and uses its R&D better than any nation in the world; and a look at the next two figures shows an interesting consequence of this in terms of foreign trade for two important classes of manufactured products. In "non-technology-intensive" manufactured goods, imports have climbed drastically since 1958, when imports equaled exports. Now exports in those products are again on the decline. The story is different, however, in the "technology-intensive" manufactured products like scientific and communications equipment where R&D investment is high. The United States still exports more than it imports, although the gap is narrowing. Obviously, those industries that rely most heavily on science and technology and are innovative do best in international trade. And this is not unexpected in view of the high cost of labor in the U.S.

Improving the country's competitive position in the world markets is not a trivial task. Many things must be done. Prime among those—as pointed out by the Metric Study—is to improve effectiveness in international standards deliberations.

The distinction between two facets of metrication—measurement language and engineering practice and design—must be drawn. The idea of changing measurement language is simple and fairly well understood. Insofar as a pounds and ounces scale can be converted to metric by changing the dial plate alone, only a language change is involved.

Engineering practices and standards are a different thing entirely. They involve the

MEASUREMENT STANDARD SENSITIVE—*Issue of metrication is most important in "measurement-standard sensitive" products such as computers in which dimensions and measurement units are critical. Differences of engineering standards are taking on new importance because countries abroad which want to encourage trade among each other are agreeing on common quality standards and certification.*

arbitrary sizes, shapes, and configurations in which we choose to make our goods. They derive from a natural human inclination to try to simplify design and to show a preference for whole numbers. Screws, bolts, and other fasteners could be made in an infinite variety of lengths. But common sense tells us that we do not need all those sizes, and so we will select a certain few conveniently spaced sizes and make only those.

Industry has been carrying on this practice of standardization for many years, and it has brought great benefit to both manufacturer and consumer. At the turn of the century, light bulbs were made in an absolutely bizarre number of base sizes and threads and bulb configurations. The idea of running to a local store for a bulb to fit a lamp was unheard of. Industry, through voluntary standardization, reduced the number of different bulbs manufactured. In so doing, they simplified their manufacturing procedures, simplified the consumer's shopping, and reduced the price of light bulbs dramatically.

Now industries in a country which uses the metric system will be inclined to standardize on sizes which are in whole numbers of metric units. Where U.S. industry may choose to make a fitting which is two inches in diameter, an industry in a metric country might prefer five centimeters. The two resulting parts would be tantalizingly close in size, but completely incompatible. How do we try to avoid such incompatabilities, which act as barriers to international trade?

Main avenue

The main avenue for nations of the world to make agreements on engineering standards is through such international standards-making organizations as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). In the working committees of such bodies, representatives of all interested nations meet to write international standards which will recognize product technology in use by the participating countries. The resulting standards often require some adjustment in the practices of the participants, but if the job is done properly no one's products are completely excluded and the adjustments fall evenly among the participants.

The United States carries two disadvantages in this process. First, our industries do not participate to the extent that they should, and second, our representatives take up much of their time worrying about the metric—U.S. customary unit problem. Our people must work to have measurement conversion tables included in the written standards. This sort of consideration often gets them labeled as obstructionists. At the very least it distracts them from the main task, which is the consideration of technology and the protection of existing U.S. practices. Since the battle for international markets is fought to a great extent in these international standards deliberations, and will be for years to come,, it would be well that our representatives carry no continuing and unnecessary burdens.

Recognition due

We have every reason to expect that U.S. technology will receive the recognition it is due if we participate vigorously in the negotiations. Today only about 2,500 international standards and recommendations have been adopted by IEC and ISO. World trade needs somewhere between 20,000 and 30,000 standards to function effectively. The industrial powers of the world now recognize the urgency of this need and are producing

international engineering standards at an ever increasing rate. Most of the international standards required will probably be drafted in the next 10 years.

If the United States stands by while other nations write their 10,000 metric industrial standards, then the process of going metric in the U.S. will mean conversion to foreign industrial practice. If, instead, we get our technology written into those international standards, the other nations will have to change to our technology at least as often as we do to theirs. This is a major source of urgency toward getting started with developing U.S. national metric standards.

America's ability to produce the necessities (and luxuries) of life and to keep our people gainfully employed depends on our industrial ability to mass-produce products for large markets. Producing products for our more than 200 million citizens in a coherent national market is the basis of our economic health.

Harmonizing standards

We are not alone in understanding this principle. The nations of the Common Market and European Free Trade Association are trying to put together a market of 265 million people. To do this they must harmonize their measurement standards and their engineering standards. They have all agreed to speak the same measurement language and develop common engineering standards so that they may exchange goods freely between nations.

In world trade, the issue of metrication is most important in "measurement-standard sensitive" (MSS) products, those in which dimensions and measurement units are critical, like thermometers, vacuum pumps, computers, refrigeration equipment, printing machinery, and so forth. In 1969 the United States exported about $14 billion worth of MSS products, and imported $6 billion worth. Obviously, this group of products is critical to our balance of trade.

Until quite recently, differences in measurement systems and engineering standards did not have a major impact on world trade in that they were less important than other factors like price, reputation and reliability of the manufacturer, superior technology, and quality of the product.

Now, however, differences of engineering standards are taking on a new importance because countries abroad which want to encourage trade among each other, as in regional groups, are agreeing on common quality standards and certification programs. The agreements provide that when products are certified by the producing country as meeting the agreed engineering standards they will be accepted without further inspection or test by all the other countries adhering to the agreement. This mechanism will increasingly serve to facilitate trade among the agreeing countries, but can inhibit imports from all other countries.

The urgent need now, if this potential nontariff barrier to trade is not to have major impact on our exports, is for our much greater participation in the development of international engineering standards and our access to these emerging certification programs.

Granted, going metric won't solve U.S. problems in world trade.

If we were to convert to metric measurement overnight—and, incidentally, such crash conversion was never considered a realistic alternative—it would have very little impact on our position in world trade. Price, reputation, reliability, and so on, would still be the dominant factors.

However, if we ignore the trends and do not participate vigorously in the international standards-making process, we will surely find ourselves soon at a large competitive disadvantage, whether we convert our measurement system or not. Surely the metric issue has a great deal to do with our performance in international standardization, but it is not the overriding issue.

Enthusiastic participation

If we participate enthusiastically in international standardization, but ignore metrication at home, we will protect and perhaps even improve our trade position in the near term. But in this case, over a period of time, pressure to rationalize dimensions in metric units will either force conversion to metric on a product-by-product basis or will drastically increase the expense U.S. manufacturers will have to bear in keeping double inventories.

In view of these considerations, we must say that the most rational stance we can take is vigorous participation in international standardization as proponents of U.S. engineering practice, combined with a planned voluntary conversion to metric usage in this country. This is the point of view that the Department of Commerce and the National Bureau of Standards have taken before the Congress.

New Centers Help Minority Business At Local Level

50 Business Resource Centers To Coordinate Local Efforts To Develop Minority Firms

In New York City, a pretty, dynamic young lady is marshalling together business school graduates to volunteer their talents and abilities for assistance to minority-owned businesses.

In Detroit, Mich., four members have recently been added to the staff of a local economic development corporation to extend its capabilities for helping minority members of the community who want to go into business for themselves or to expand existing businesses, but lack the management and technical know-how to do it right.

In Phoenix, Ariz., a circuit rider is visiting the outlying territories of that state to give his management assistance, and that of the center for which he works, to Indians who have, or want to have, businesses of their own.

All three of these organizations—set up to develop minority-owned businesses throughout the country—have recently received contracts from the Commerce Department's Office of Minority Business Enterprise, extending needed monies to them that will make their job easier.

The new OMBE project has been established to create Business Resource Centers across the country, either with ongoing organizations or, as in the case of the Phoenix office, with newly organized local groups.

A Business Resource Center is an organization sponsored locally by prominent business leaders to mobilize, coordinate and deploy the resources of business in support of minority business development.

To date, 14 BRCs have been set up through the new program nationwide. John L. Jenkins, the OMBE Director, said that approximately 50 of these offices are expected to be contracted for by June 30 of this year.

The need for BRCs has developed as an integral part of giving assistance to minorities who want to succeed in business right in their own communities. Minority businessmen benefit from the experiences of private local businessmen who form the board of directors for each BRC and offer their expertise on a volunteer basis. BRC Board mem-

berships include senior executives from local banks, leading industrial companies, major accounting and legal firms, Chambers of Commerce, trade associations, MESBICs and others.

Established minority businessmen in the areas also serve as board members so that their experience can aid the BRC in responding to the needs of the emerging minority businessman.

As a BRC, with the assistance of both OMBE and local funding, the local group serves the minority businessman by:

- Assuring that equity capital is available by supporting the creation of Minority Enterprise Small Business Investment Companies (MESBICs) and by otherwise stimulating venture capitalists.
- Maintaining continuing contact with commercial banks and encouraging formal minority lending programs.
- Establishing contact with industrial finance companies, insurance companies, mortgage brokers, investment bankers, bonding companies, and other sources of capital or credit.
- Seeking expanded market and sales opportunities through corporate commitments to buy goods and services from minority vendors. In cooperation with the National Minority Purchasing Council and local business development organizations, setting up machinery to match buyers and sellers.
- Supporting minority suppliers' fairs and exhibitions.
- Aiding in the development of viable commercial centers and industrial sites.
- Providing information on such business opportunities as dealerships and franchises; new business situations and transfers; spin-off and joint ventures.
- Maintaining a staff of fulltime professional management consultants to serve the minority clients of business development organizations, MESBICs and commercial banks.
- Initiating and participating in seminars and workshops designed to transfer business know-how.
- Permitting a "more extensive and effective utilization of business and other vocational and professional abilities" by organizing a skills bank of experienced business and professional people.

The New York City BRC, headed by Ms. Brooke Mahoney as its program director, has been in existence actually since 1968, as the Volunteer Urban Consulting Program. Originally the organization was formed as an arm of the New York Harvard Business School Club, and Ms. Mahoney ran its office with only the assistance of a secretary and her volunteers whom she culled from the roster of Harvard Business School graduates.

NEW YORK DEVELOPMENT — *Brooke W. Mahoney (center), is shown with her staff, Arnold E. Galvez (left), and Tommy J. Fulcher, discussing Minority Business Development Organizations.*

Its purpose, then as now, has been to give managerial and technical assistance to minority-owned businesses, helping them to get on a firm financial footing. The program's executive committee, the advisory council and Ms. Mahoney carefully pair each businessman's needs with a volunteer's specific talents and abilities.

Volunteer consulting

The difference is that Ms. Mahoney, through the Volunteer Consulting Program's contract with OMBE to become a BRC, now has a full-time staff of six to assist her in her challenges, and she can also call upon the volunteer services of other business schools graduates and other New York City businessmen who want to help in this endeavor.

A BRC since February of last year, the Volunteer Urban Consulting Program has

helped keep a minority-owned bowling alley in business, found capitalization for a $6 million office building in Harlem, assisted in putting a black-owned trucking firm on its feet, and given assistance to all types of minority businesses in the area.

Ms. Mahoney, a Harvard Business School graduate herself, is dedicated to her task. Of her ability, one volunteer noted, "Brooke Mahoney is Supergirl. It's she who puts the steam into all these projects, finding the minority businessman who needs help and matching the businessman with the right volunteer for the project. The program couldn't operate without her."

But, thanks to the OMBE program, the Volunteer Urban Consulting Program now has added help and will be able to extend its services even farther in the New York area.

The Detroit BRC, the Economic Development Corporation of Greater Detroit, was formed in 1968 as New Detroit's "arm" in the field of minority economic development. The four-year-old corporation, headed since its inception by Michale Weston as its executive director, boasts a 57-man board of directors, representing 52 organizations in that area.

Substantial resources

Virtually every member of EDC has the power to commit substantial resources of his corporation to support the activities of EDC.

Until July of last year, EDC's budget was provided 100 percent by local sources—a clear indication of the private sector support for this type of effort in Detroit. On July 1, OMBE entered into a one-year contract with EDC to perform additional services to its community as a BRC.

In so doing, OMBE became a partner with New Detroit, Inc., a coalition of Detroit's major corporations, which has provided over $2 million to EDC over the past three years.

The OMBE monies will allow EDC to add four members to its professional staff and also to subcontract with the Business Advisory Resource Bank of the Detroit Chamber of Commerce, which will provide assistance, through a volunteer pool, to businesses with capitalization under $100,000. These volunteers are organized into eight specialty teams: accounting, engineering, financial, legal, management, marketing, real estate and insurance.

In addition, the professional staff of the Chamber of Commerce will provide assistance to clients in such areas as market research and distribution, and manpower training. Donald Reimer, Manager of the Small Business Advisory Department, is utilizing the funds from the subcontract to hire a fulltime staff to coordinate and expand the BARB program.

The Phoenix, Ariz., office is a new organization established as a BRC through a contract with OMBE.

The new organization, Metro Phoenix BRC, is a private non-profit corporation which owes its establishment primarily to the effort of James Wiley, its board chairman, who is vice president of Valley National Bank in Phoenix. Mr. Wiley worked closely with OMBE to create the new BRC.

Circuit rider

The office has a staff of four: the executive director, Rod Gutierrez and two professional staff members, Jim Salmon and Jane Sundeen, and a secretary. A full-time management specialist who will serve as the circuit rider visiting Indian reservations and settlements to help the Indian-owned businesses, will be on board in the near future.

In addition to the OMBE BRC contract, Metro Phoenix, with the assistance of Wiley and other board members, is expected to re-

DEVELOPMENT PLANNED—*Plotting minority enterprise development in New York are (from left) Frank B. Bell, Arnold E. Galvez, Ralph E. Austin and Carlos M. Maldonado.*

ceive further support from banks and businesses in the area to provide larger staffing. Wiley has also rounded up a team of businessmen in the area to serve as the BRC board of directors, and to volunteer their time and expertise to assisting with the development of minority businesses in that area. It is expected that Mexican-Americans and Indians will receive the largest part of the staff time assistance, in view of the minority group population of the Phoenix area.

Other units

Other BRCs have been established in key cities in the United States, including Philadelphia, Charlotte, N.C., Cincinnati, Dallas, Washington, D.C., Chicago, Memphis, Louisville, St. Louis, Pittsburgh, and Chattanooga, Tenn.

In Philadelphia, the Delaware Valley BRC which received an OMBE contract to serve as a BRC, the board of directors includes such well-known businessmen as Thatcher Longstreth, President of the Greater Philadelphia Chamber of Commerce; Donald D. Scarff, Regional Vice President, General Electric Co., Roger Hillas, President, Provident National Bank; R. Anderson Pew, Secretary-Treasurer and Manager of Financial Control, Sun Oil Company of Pennsylvania; Rev. Leon H. Sullivan, OIC, and Elmer Young, Vice President, First Pennsylvania Bank.

Separate role

A BRC, Jenkins warns, is not to be confused with a local business development organization. "Its role is completely separate," the OMBE Director said.

For instance, the BRCs will not package loan applications for submission to banks, MESBICs, SBA and other capital sources. Instead, the BRC is responsible for developing resources in accord with needs demonstrated by the BDOs.

"A BRC's role will be fulfilled," said Jenkins, "when the BDO's clients have access to capital, markets, and management know-how."

Minority purchasing

The OMBE official also stressed the role that BRCs are playing in cooperation with the National Minority Purchasing Council.

In each BRC, the staff marketing specialist has the responsibility for coordinating the local efforts of the National Council. A local Purchasing Council (or committee) is formed by the BRC, consisting of a number of minority organization directors and local businessmen who have corporate purchasing responsibility.

AID IN DETROIT—*Gary White (left), president of White Association, a minority-owned film production and communications firm, is shown being advised by Thomas H. Steffen, vice president of the Economic Development Corp. of Greater Detroit.*

The function of this local council is that of creating an environment in the private sector of the economy that will make purchasing from minority firms a normal corporate practice and thereby increase marketing opportunities for minority entrepreneurs.

Established procedures

The Council is charged with establishing procedures and programs to identify minority suppliers capable of fulfilling corporate purchasing requirements; developing programs of assistance to minority-owned companies to enable them to qualify as sources of supply; and maintaining a continuing information program on corporate purchasing requirements and minority-owned capabilities.

"The minority business development concept is one designed to bring minorities into the businessworld of America and make them a part of the American free enterprise system. We expect BRCs will be a valuable tool in this endeavor," said Jenkins.

—*Office of Minority Business Enterprise*

DOMESTIC BUSINESS REPORT

- Ship contracts buoy U.S. yards
- Textiles—creativity and productivity
- Minority business program zooms into 1973
- Business census yields data on economy
- More U.S. citizens travel abroad

Roll On, Roll Off Ship Pacts Buoy U.S. Yards

A contract valued at $35.3 million covering the construction of one of the largest roll-on, roll-off ships to be built in the United States has been signed in Washington, D.C.

Bath Iron Works Corp., of Bath, Me., will build the 18,000-deadweight ton ship for States Steamship Co., of San Francisco, which will use the new vessel—along with three others ordered from Bath last June—in its U.S. Pacific-Far East service.

According to Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, who signed the contract for the government, the price of the vessel ordered today reflects a $2.5 million reduction in the per-ship price for the first three States ships.

As contrasted to a $16.2 million subsidy payment on each of the initial ships, the current contract provides for a subsidy of $14.3 million.

"This decline in subsidy graphically illustrates the productivity gains being made by the Bath shipyard in terms of lowering its costs. Because of these gains, the subsidy rate has been lowered from 43 to 40 percent of the price of this last ship," Blackwell explained.

The subsidy, he said, is calculated by subtracting the equivalent foreign-cost of the ship, which in this case was estimated to be $21 million in a Japanese shipyard, from the domestic price.

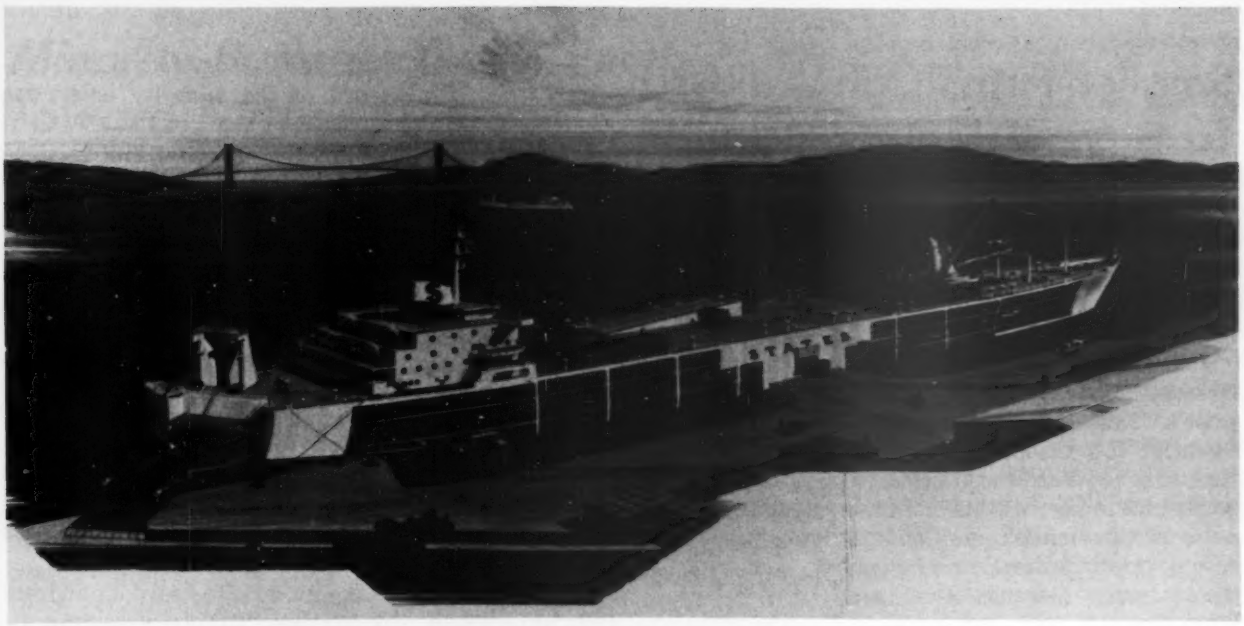
Like the first three, which cost $37.8 million each, the latest vessel will be 684 feet long, 102 feet in beam, and 32 feet in draft, with a speed of 23 knots.

Blackwell noted that this contract brings the total value of shipbuilding awards under President Nixon's two-year-old maritime program over the $1.7 billion mark, with 37 new vessels and 13 ship conversions ordered to date.

Representing in excess of 3,000 man-years of work for the Bath, Me., shipyard, the four States ships are scheduled for delivery between 1975 and 1977.

These roll-on, roll-off ships load and discharge their cargoes of truck vans through a stern ramp, in contrast with other types of general cargo ships which require cranes or booms.

—Maritime Administration



ROLL ON, ROLL OFF VESSEL—*The roll on, roll off ship shown here illustrates one variety of a number of new and larger vessels that will carry much of this country's rapidly expanding cargo of the future.*

More Bulk Cargo Imports To Be Carried By U.S. Ships

Liberalization of Federal maritime policies to bring bulk carriers under the federal assistance programs provides "the incentives, and the ways and means, to correct this Nation's most glaring maritime deficiency," states Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs.

That deficiency, according to Blackwell, is the virtual absence of American flag participation in the enormous volume of bulk cargoes which move in this Nation's foreign trade.

"Bulk cargoes now constitute nearly 90 percent of our foreign trade cargoes," Blackwell noted in a recent address to the Shipbuilders' Council of America. "Yet, American flag ships carried less than 4 percent of the 410 million tons of bulk commodities that moved in our foreign trade last year."

The Maritime Administrator said that more than two-thirds of this tonnage constituted bulk imports, reflecting this Nation's heavy reliance on foreign raw materials to keep the wheels of industry turning. All signs indicate that imports will continue to show a substantial growth in the years ahead.

"The magnitude of the projected energy imports, coupled with other foreign raw materials we will require to sustain our economy," said Blackwell, "has opened up a very large market for the domestic shipbuilding industry."

Blackwell put into perspective the numbers and types of ships which would be required to handle U.S. energy and dry bulk imports in 1985, if the U.S. were unable to expand domestic production.

In terms of oil tankers—112 vessels in the 80,000 deadweight ton range would be required, plus 284 Very Large Crude Carriers in the 250,000 ton range. Additionally, 92 LNG carriers of 125,000 cubic meters capacity would be needed.

To handle dry bulk imports, 75 vessels of 120,000 deadweight tons also would be necessary.

"This is the inventory of ships we believe would be required if there were no change in the Nation's energy policies, which is most unlikely," Blackwell said.

Noting that energy imports have very great ramifications on the Nation—in terms of national security and economy—Blackwell said there is understandable concern about being heavily dependent.

Similarly, he noted further, it is estimated that the adverse impact on U.S. balance of payments position could grow to $20 billion per year if the country's energy imports amounted to these volumes.

Whatever policies and programs that may emerge from the President's initiatives, Blackwell said large volumes of imported energy will be needed to augment domestic supplies well into the 1980s. Even if substantial increases of domestic energy supplies are brought on line over the next 10 or 15 years, their impact will be blunted by the fact that domestic consumption will have doubled within that same time frame.

"We see near term opportunities to build at least 30 LNG ships with a contract value of $2.5 billion by 1980—and this may prove to be an overly conservative figure," Blackwell concluded. —*MarAd*

Smaller Firms Can Adjust Better To Buyers' Moods, Minorities Hear

Small businesses are a viable route toward economic participation by minorities, according to Walter H. Johnson, vice chairman of World Magazine, the new Norman Cousins venture.

Johnson told participants in the Office of Minority Business Enterprise's National Conference of Business Development Organizations that the small businessman is better able to keep his finger on the pulse of the marketplace and to develop opportunities from changes in consumer demands than are large firms.

The New York executive noted that small businessmen are in a position to personalize their business relationships and thereby profit from the public's disenchantment with mass marketing techniques. And he urged minority businessmen to consider the growing consumer interest in leisure products and services.

Specific responsibilities

Johnson addressed 500 minority business development specialists in Phoenix where the OMBE meeting featured 21 hours of workshops dealing in detail with specific responsibilities of Federally-funded business development organizations. The workshops featured experts in finance, communications, accounting, marketing and other areas of private industry. Government specialists in procurement, contracting, and auditing were among others contributing to the program.

Conferees

The conferees, from throughout the country, expressed the view that the meeting offered a valuable opportunity to exchange ideas and information with fellow minority business developers and recommended continuing this by holding periodic meetings on a regionalized basis.

Since, in the final analysis, every business is a local business, OMBE stresses the importance of these local business development organizations which it funds. OMBE Director John L. Jenkins called the local business developers the vanguard of the minority enterprise movement.

"You are the vital link between the entrepreneur and the business resources," Jenkins told the group, "and it is essential that your performance reflect the highest professional standard."

Jenkins noted that in its evaluation of Business Development Organization performance his office places special emphasis on documented reports of actual accomplishments in the various areas that contribute to giving minority entrepreneurs access to business opportunities and resources.

The group also heard an address by Sterling Tucker, executive director of the Washington, D.C., Urban League and vice president of the City Council in the Nation's Capital. Tucker called the struggle for economic equality by minority Americans the Third Reconstruction.

"By preparing to compete in the marketplace and learning to deliver in the marketplace," Tucker asserted, "black people and other minorities can enter that mainstream that leads to full economic justice." —*OMBE*

SPEAKER—*Walter Johnson addresses national conference of Business Development Organizations which assist minorities in business ventures.*

CONFEREES—*Delegates to the Phoenix meeting shown discussing program are (from left) Larry Vallo, executive director, Indian Camp Ground, Sacramento; Ruth Dahozy, Navajo Small Business Development Corp., Ft. Defiance, Ariz.; Bob Mendoza, National Economic Development Association representative, San Jose, Calif.*

Minority Business Gains Point Toward Further Economic Progress

The movement to bring black, Spanish-speaking, American Indian, and other minorities into the American business mainstream recorded unprecedented gains in 1972, according to the Commerce Department's Office of Minority Business Enterprise (OMBE).

Some of the major advances in the development of business opportunities for minorities reported by OMBE include:

- the obligation of $866.5 million in Federal funds for minority business programs, more than four times the funding level in 1968.
- the purchase of $394 million in minority-produced goods and services by the Federal government skyrocketing from $13 million in 1969.
- the contracting by OMBE of 245 organizations to offer business assistance to minorities in communities across the nation with $49.4 million in funds.
- the $1 billion five-year loan commitment to minority business by the American Bankers Association, which reported that $411 million of that figure had been reached in the second year.
- the initiation of a program to encourage State governments to mobilize their resources on behalf of minority business development. Currently, nine states have complete programs—State OMBEs—to assist minority business growth.

"The progress we have made this past year toward a meaningful inclusion of minorities in the nation's economic life is without precedent," stated OMBE Director John L. Jenkins. "If one year can be said to have been the upward year in the minority business program in terms of real outlays of resources by the public and private sectors, it has been 1972.

"In the past year, we have seen the expansion of the program into the local community through 140 business development organizations and into the private business community through the formation of the first National Minority Purchasing Council, consisting of chief executives of major corporations, and through a new variety of minority business resource programs and market opportunities offered by the private sector," he continued.

According to Jenkins, 1972 saw the servicing of over 16,000 minority businessmen, the packaging of 1,500 loans, and the extension of management and technical assistance to over 5,000 minority firms. He added that OMBE's field office network grew from eight offices to 25 in 1972.

Jenkins cited the fact that the need for a national minority business program grew out of a special census taken in 1969 which showed that while minorities constitute 17 percent of the U.S. population they operate 4 percent of the nation's businesses which account for only 0.7 percent of the total receipts of all U.S. firms.

"A groundwork in government and in private industry has been set for 1973 to surpass 1972 in the way of correcting that disparity," Jenkins declared. "We are talking here of a muliplier effect for the resources allocated in 1972, resources which will generate new resources for minority business development in 1973."

U.S. Tourists Going Abroad In Record Numbers Despite Dollar Revaluation

U.S. citizens are traveling abroad in record numbers, despite the revaluation of the dollar which took place a year ago.

United States Travel Service analysis of Immigration and Naturalization forms shows a 19.9 percent increase in the number of Americans who took overseas trips during the first seven months of 1972.

The figure was 4.3 million, according to C. Langhorne Washburn, Acting Assistant Secretary of Commerce for Tourism.

USTS data shows over 2.4 million overseas tourists visited this country during the first 10 months of 1972, an increase of 14.1 percent over the same period last year. Overseas visitors do not include Canadian and Mexican tourists.

Japan and the United Kingdom, both of whose currencies were revalued upward in relation to the dollar, continue to lead in the number of overseas tourists selecting the U.S. as a travel destination.

Ten-month figures show 335,307 visitors from Japan and 336,438 from the United Kingdom. Percentage increases were 31.9 and 18.3, respectively, over similar periods last year.

A beneficial side effect of revaluation has been that many Mexicans have found the U.S. a better vacation value than many European countries whose currencies were revalued upward.

The result has been a 15.7 percent increase in Mexican visitors during the first 10 months, Washburn said. Figures show 1,151,453 Mexicans traveled to U.S. destinations through October. USTS analysts forecast 1,350,000 Mexican tourists will enter the United States this year.

"Currency revaluation made the U.S. a more competitive tourist attraction," Washburn concluded. But he urged more aggressive promotional efforts to lure foreign visitors here.

"We cannot rely on currency changes to do the job of selling the United States as a true travel bargain," said Washburn.

—USTS

Research And Productivity Called Keys To Textile Industry Growth

"Creative research and development resulting in increased productivity is basic to the (textile) industry's ability to maintain the strength and vitality needed to meet crucial challenges of the future," asserts Stanley Nehmer, Deputy Assistant Secretary and Director of the Bureau of Resources and Trade Assistance.

Nehmer reviewed accomplishments of the textile industry and posed challenges of the future at the New York Board of Trade's annual textile award luncheon recently.

Nehmer was the recipient at the luncheon of the New York Board of Trade's Textile Section Award in recognition of distinguished service to the Nation in the field of textiles. The 1971 award winner was Frederick B. Dent, who President Nixon has announced will be nominated for Secretary of Commerce.

The new challenges, Nehmer told the textile industry leaders, "will provide the supreme test of your determination, your skills and your resources; they will be different from the challenges presented by imports and they will be critical to your economic well-being and perhaps even to your ability to survive as an important and vital segment of our economy."

In order to confront these challenges—one of the most pressing being the need to increase productivity—Nehmer asserted that the textile and apparel industry must undergo a hard, critical and analytical self-examination with a view to becoming even more efficient, even more dynamic, and even more competitive than it is today.

He added that these challenges are not limited to the textile industry but must be faced by the entire industrial sector of the U.S. economy.

Noting a global realignment of economic powers, he said "we now share the world economic stage with such superpowers as Japan and the European Economic Community."

"One of the ways to assure that we continue to play a key role in the newly restructured balance of international economic power is to increase our competitiveness," he continued. "The cornerstone to achieving this goal is to increase productivity."

Nehmer asserted that new and vigorous efforts must be directed toward the development of new innovations in production techniques, toward the prompt purchase and utilization of most modern equipment, and toward the improvement of current manufacturing processes and the development of new ones.

Few people outside the textile industry recognize how competitive it already is, Nehmer pointed out.

For example, the largest textile firm accounts for only 8 percent of total textile sales and the largest apparel firm accounts for only 2 percent of total apparel sales.

Further noting the gap between labor costs here and in many countries abroad—$2.70 an hour in an American apparel plant and 10 cents to 60 cents an hour in most Far Eastern clothing factories—Nehmer said this gap has not been bridged by any technology the textile industry or its machinery suppliers have been able to devise to date.

Stanley Nehmer
Deputy Assistant Secretary of Commerce for Resources

Still, he said, major improvements in productivity cannot be a closed issue.

"It seems that more can be done to stimulate productivity by investing additional time, money and effort in research and development," Nehmer continued, recognizing, of course, that the textile industry's ability to invest capital relates to profitability.

Cooperative effort

What may be needed today is a cooperative effort on an industry-wide basis. Perhaps an apparel industry productivity institute which can launch a concerted effort aimed at making this already highly productive industrial complex even more productive and, of importance, more competitive with the output of foreign producers.

Nehmer noted that the textile and apparel industry has made significant strides through the development and utilization of such cost-saving advances as laser cutting and water jet looms in the production process.

Competitive forces abroad, however, are constantly searching for ways to develop and maintain a competitive edge in the world marketplace, witness current Japanese effort to build a fully automated apparel plant.

A challenge which, he told the textile industry leaders, "you have come tantalyzingly close to accepting but which somehow has eluded your full attention," is presented by the select and lucrative export markets.

Although these markets are undeniably profitable they have remained the stepchildren of the do-

mestic market, Nehmer said further.

"We have always shown an interest in the rather glamorous and exotic nature of these markets, but only a few firms have made a concentrated effort to penetrate them," Nehmer stated.

Diverse nature

Perhaps because of the diverse nature of these markets and the fact that they each require a tailored marketing and merchandising effort, the industry has never fully involved itself in the undeniably tough and painstaking efforts that are required to develop them.

Yet, he asked, why should the U.S. textile and apparel industry take a back seat to foreign competitors who have been so successful in selling their products in the international marketplace?

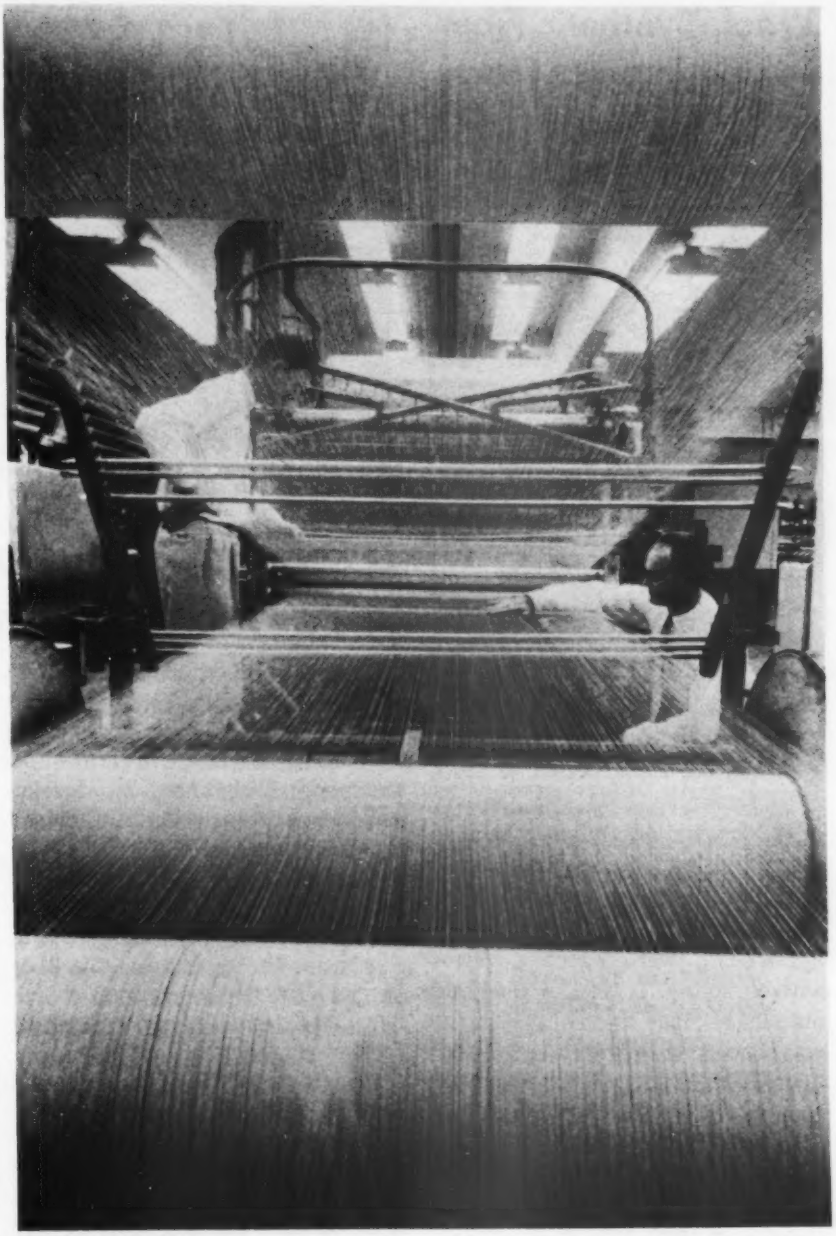
High quality

After all, there are markets in the world receptive to high quality, well-styled and effectively-merchandized products—the very products the U.S. textile industry manufactures in abundance for domestic consumption.

"In a rapidly shrinking world, we cannot afford to be preoccupied with our own domestic market," Nehmer asserted. "The national interest as exemplified by our trade and payments deficits requires all industries to think exports. And the dynamics of international business dictate that a truly competitive industry successfully penetrate economic, political, and cultural boundaries in its search for new markets."

Re-examine role

Nehmer concluded that the U.S. textile and apparel industry may wish to take this opportunity to reexamine the role it has played up to now in pursuing export markets and to adjust that role to the present and future demands of a fast-paced worldwide environment.



TEXTILE CREATIVITY—*Finish is imparted to acetate yarn by slashing and sizing the fiber. This process creates an improved and better grade product.*

In addition to increasing productivity, Nehmer said the industrial economy faces perhaps its stiffest challenge in curbing the problems of pollution, increasing the level of industrial health and safety standards, and providing consumers with better and safer products.

"Our ability as a nation, to continue to enjoy our bountiful natural resources rests heavily on our ability to control pollution while maintaining economic vitality," he said, commending the textile industry leaders. "Your recognition of the ecological problems is underscored by your commendable efforts in working with the Federal Government to assure that this delicate balance is maintained."

—Bureau of Resources and Trade Assistance

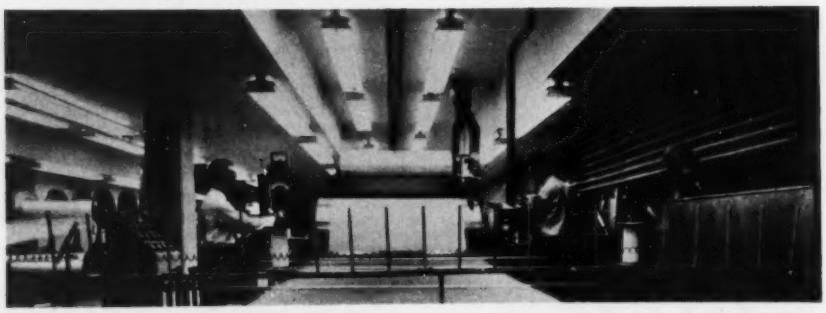
Wool, Synthetic Fiber Textile Imports Drop From Major Suppliers

In the first ten months of 1972, United States man-made fiber textile imports from major supplier countries—Japan, Hong Kong, Taiwan, and Korea—were 14 percent below the levels for the same period of the previous year. Man-made fiber textile imports from major Far Eastern suppliers for the first ten months of 1972 were 1.9 billion square yard equivalents, compared to 2.2 billion square yard equivalents for the same period of the previous year. Wool textile imports from these countries in January to October 1972 were 8 percent below the level of the previous year, or 47.3 million square yards, compared to 51.2 million square yards in the same period of 1971.

In December 1971 and January 1972, the United States concluded wool and man-made fiber textile agreements with Japan, Hong Kong, Taiwan, and Korea. These agreements were effective retroactively to Oct. 1, 1971. A wool and man-made fiber textile agreement was reached with Malaysia in 1970. Together, these countries were responsible for over 60 percent of man-made fiber textile imports and 50 percent of U.S. wool textile imports in 1971. In the first 11 months of 1972, these same countries were responsible for 50 percent of man-made fiber and 46 percent of wool textile imports.

On Dec. 22, 1972 the United States signed a new textile agreement with Portugal covering cotton, wool and man-made fiber textile imports from Macao. This five-year agreement has an overall ceiling in the first agreement year of 24 million square yard equivalents for man-made fiber, 2.5 million square yard equivalents for cotton, and 2 million square yard equivalents for wool textile imports.

The United States has bilateral cotton textile agreements with 31 countries. Approximately 90 percent of U.S. cotton textile imports are controlled under these agreements.



TEXTILE PRODUCTIVITY—*Textiles are constantly scrutinized and modified by chemical engineers. Fibers are made more durable and beautiful by new processes or additives. In this photograph distinctive finish is being imparted to acetate yarn.*

U.S. Trade Adjustment Program Aids Georgia Firm Hurt By Imports

A Georgia textile manufacturer injured by imports is using a tax refund, obtained through the aid of Commerce's Office of Trade Adjustment Assistance, to develop new product lines less threatened by imports.

Bibb Manufacturing Co. of Macon, Ga., which received a $3.3 million tax refund in September 1972, illustrates the working of the little known Commerce program which helps U.S. companies damaged by foreign competition.

A firm injured by imports and found eligible for Commerce's assistance program, can carry operating losses back five years instead of the usual three year limit, and thus obtain working capital for current adjustment efforts.

Bibb, a long established, multi plant company, until recently produced primarily coarse cotton yarns and fabrics sold to other manufacturers for further processing. These traditional products were heavily impacted by imports, resulting in operating losses to the company of nearly $16 million in 1970 and 1971.

In developing its adjustment proposal, which will take nearly five years to carry out, Bibb decided to concentrate on household products such as draperies, bedspreads, and carpet yarns. Its new president, William S. Manning, provided the leadership to turn the old company around and head it in a new direction. The firm modified its equipment and plant layout, and built up larger inventories both of materials and of finished products while it sought new customers.

Basic to its revitalization was the tax refund which provided working capital. Proceeds from the sale of relatively unproductive facilities, and a substantial long term loan from a major life insurance company aided Bibb in expanding its operations. It expects to be operating profitably in 1973 when the changes in production facilities have been completed.

Bibb's case history shows how one medium size company, hurt seriously by import competition, can, by moving aggressively, avoid this competition by prompt and appropriate changes in its product mix.

Types of assistance available under the program, which first requires petition to the Tariff Commission requesting a determination of eligibility, are technical, financial and tax.

Twice-In-Decade Business Census Yields Vital Data On Economy

More than two million of the Nation's largest businesses and industrial firms are being canvassed in the 1972 Economic Censuses.

The censuses, which began with mailing of questionnaires in December, is taken every five years and constitutes the primary source of facts about the structure and functioning of the economy.

Business uses

Businessmen use the data to gauge potential markets, make economic or sales forecasts, analyze sales performance, lay out sales territories, allocate sums for advertising, decide on locations for new plants, warehouses, or stores.

Trade and professional associations use the information to study trends in their particular businesses and in opposition lines. State and local governments, Chambers of Commerce and other groups utilize the information describing economic activities within their jurisdictions and areas of interests.

The two million plus questionnaires were addressed at the Jeffersonville, Ind., data processing center of the Census Bureau, loaded on vans and hauled to distribution centers throughout the United States. The forms, scheduled for mail delivery over the next few weeks, are due back in the mail to the Census Bureau by Feb. 15.

Noting that the questionnaires were sent to all large businesses, the Census Bureau explained that only a small sample of the remaining 2.9 million businesses will have any direct involvement in the censuses. Most of the information about this group will be obtained from administrative records of other government agencies.

Included in the Economic Censuses are mining, manufacturing, retail trade, wholesale trade, the service trades, construction and transportation business firms.

Firms being canvassed will report on the amount of business done in 1972; the number of persons employed; the amount of wages paid, and, the lines of business in which the firm is engaged.

Results of the censuses will be published for the United States as a whole; for each state; and usually within each state, for counties, cities, and Standard Metropolitan Statistical Areas. Retail trade figures will be produced for Major Retail Centers within all of the Nation's Standard Metropolitan Statistical Areas.

Results summarized

Apart from the information for different areas the results of the censuses will be summarized by industry and in other ways.

Firms receiving questionnaires are required by law to respond.

The same census law protects the privacy of all information reported to the Census Bureau by providing that the information reported in a census may be used only for statistical purposes; may not be published so that information for any business firm can be identified; and, may not be seen by anyone other than sworn census employees.

—Census Bureau

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints —the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

HIRE

A Veteran:

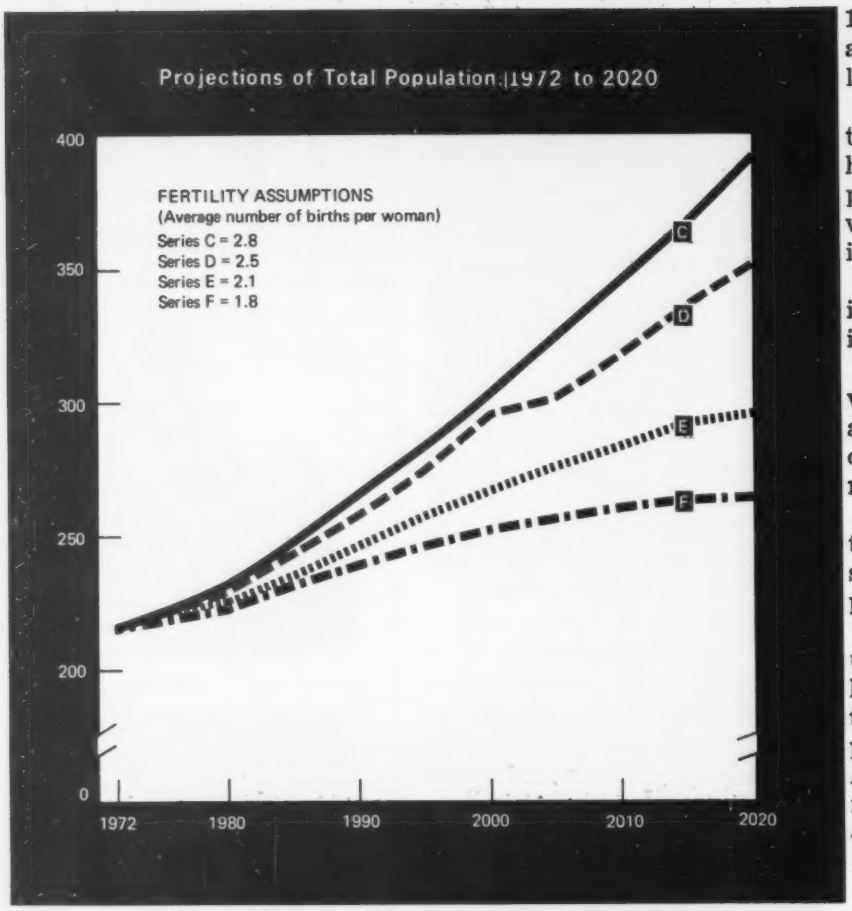
Construction worker
Electronics technician
Electrician
Draftsman
Cook
Aircraft mechanic
Medical technician
Policeman
Computer programmer
Nurse
Administrator

He's Home.

Home with maturity, abilities and ambition.

Veterans have experience in dozens of fields. And hundreds of specialties . . . many of them hard to find. Trade skills. Technical skills. Professional and supervisory skills.

Call or visit your local state employment service.



Sharp Drop In U.S. Fertility Rate Cuts Estimates Of 2000 Population

A continued sharp drop in both fertility and birth expectations is reflected in new projections of the U.S. population, contained in a new census report.

The report projects a population for the year 2000 of 251 to 300 million, down from the earlier projected range of 271 to 322 million.

The Census Bureau normally prepares four alternative projections of future population growth, incorporating high and low assumptions about fertility. These individual projections are labeled alphabetically — for example, A through D. When new data suggest that the underlying fertility assumptions should be revised, then certain projections are dropped and others are added. For example, series A, the highest projection, was eliminated in 1970 at the same time that a new low projection, series E, was added. The current new series, F, which is based on still lower fertility assumptions, is now being added, while series B is being eliminated. Thus, within a time span of only 2½ years, two high projections have been eliminated and two low projections have been added.

An arbitrary choice

The choice of a fertility rate of 1.8 births per woman for the new series F is entirely arbitrary, as there is no precedent in Census Bureau demographic history for assigning such a low level although some demographic experts in the 1930s visualized an end to growth and even a decline in total population.

Current estimates indicate the total fertility rate during the first half of 1972 to be about 2.1 births per woman. This is the rate which would eventually reach zero growth in the absence of immigration.

All four series show an increase in the projected number of births into the early 1980s.

The increase in the number of women in the prime childbearing ages through that time more than offset the decline in the average number of births per woman.

The age structure of the population in the year 2000 also will be strongly affected by future fertility patterns.

The projections in the report are updated to reflect not only the latest fertility and birth expectations data, but also the estimated population base for July 1, 1972. All four series assume a continued net immigration into the U.S. of 400,000 persons a year.

—Census Bureau

Note For Federal Contractors

The Viet-Nam Era Veterans Assistance Act of 1972 requires Federal contractors and first-tier subcontractors to list job openings with the United States Employment Service.

The primary purpose of this Executive Order is to expand the job opportunities that the Employment Service can make available to Viet-Nam-era veterans.

Business firms that are affected by this directive can make a significant contribution to the Jobs for Veterans Program through voluntary support and implementation of the order's specifications.

Full details of the Executive Order can be obtained by contacting the nearest Employment Service or Regional Manpower Administration office.

Planners Can Use Report On U.S. Housing, 1959-71

Businessmen planning the future in housing construction and related markets may find helpful hints from the past in a new Census Bureau publication which traces housing starts and permit authorization for the past 12 years.

The new publication brings together under one cover the monthly and quarterly housing starts and permit authorization data as well as data on mobile home shipments from 1959 through 1971.

This supplement to the Census Bureau's regular series of reports on starts and permits and was prepared to eliminate the inconvenience of having to use separate reports when using a variety of data from this time series.

The first part of the new publication contains charts that pinpoint trends and changes in the data, which are shown in the tables that make up the remainder of the publication. Included are 16 annual and quarterly tables of data on fixed housing units as well as manufacturers' shipments of mobile homes.

An appendix describes the survey on which the statistics are based, procedures for deriving them, contents of some tables in depth, and definitions and technical terms. A series of tables showing housing starts and starts-related data from out-of-print publications.

This publication includes data only through 1971. During 1972, the housing industry continued to boom and starts for the year are estimated at close to 2.4 million. When nearly 600,000 mobile homes are added, the total for the year was almost three million housing units.

Single copies of "Housing Starts, 1959-1971" Series C20 Supplement, are available for $1.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or from Commerce field offices in major cities.

—Census Bureau

Federal Agencies Checking Construction Project Costs To Curb 'Windfall Profits'

In an effort to reduce contract prices on federal construction projects, Donald Rumsfeld, Director of the Cost of Living Council, has urged all departments and agencies which contract for construction to check a list of construction industry collective bargaining agreements in which scheduled increments were reduced. The agreements were negotiated prior to March 29, 1971, and reductions in these increments occurred as a result of action by the Construction Industry Stabilization Committee.

A complete list of these agreements has just been made available to the public by the Construction Industry Stabilization Committee.

The letter sent by Rumsfeld refers to a Price Commission regulation requiring renegotiation of contracts performed by construction workers whose wage and salary increments have been reduced as a result of CISC action. The Price Commission action was taken to prevent what it calls "windfall profits" for contractors whose prices were predicated on the assumption of higher wage costs.

—Cost of Living Council

Food Processors To Hold Trade Show In San Francisco

The largest annual U.S. trade show in the food processing industry will be held at San Francisco's Civic Center, January 25-28. Early registration figures point to a record 12,000 Industry members on hand for this show, the 1973 Nation Exposition for Food Processors (NEFP), sponsored by the Food Processing Machinery and Supplies Association (FPM&SA).

Food Processors from throughout the United States, as well as from many foreign countries, are coming to San Francisco for the NEFP and for the concurrent Canners Convention sponsored by the National Canners Convention.

Information about the NEFP can be obtained from the Food Processing Machinery and Supplies Assn., 7758 Wisconsin Ave., Washington, D.C. 20014.

Calendar For Businessmen

Jan. 14-19—Tucson, Ariz.—Basic Industrial Development Course, accredited by the American Industrial Development Council, University of Arizona. Ray E. Tanner, Economic Development Administration special assistant for Indian Affairs, will speak Jan. 15. For information, John Swenson, Coordinator of Business Conferences, School of Business and Public Administration. Phone: 602-884-1252.

Jan. 23 — Gaithersburg, Md. — Users - Producers Conference, sponsored by the National Bureau of Standards and the Center for the Study of Private Enterprise, The American University. For information, Dr. Jimmy D. Johnson, Director, Private Enterprise Center, School of Business Administration, American U., Washington, D.C. 20016.

Jan. 24-25 — New Orleans — National Association of Industrial Parks, Urban Life Conference. For information, NAIP, Arlington, Va., Phone: 703-525-5638.

Jan. 29-Feb. 2—Washington, D.C. —Water Resources Engineeering Conference, coordinated by the American Society of Civil Engineers, New York. For information, the Engineering Foundation, New York, Phone: 212-752-6800.

SCIENCE & TECHNOLOGY REPORT

- **28 bills passed by Congress to affect fisheries**
- **U.S., USSR fishery experts agree to conserve certain food species**
- **Agnes probe finds people performed well**
- **Second largest tuna catch made off West Coast**
- **Patents of special interest**

FCC Asked To Expand Television Services

A petition to change the television broadcasting rules to permit sending time, frequency and other information over the nation's television network services has been sent the Federal Communications Commission by Commerce Secretary Peter G. Peterson.

The petition, in behalf of Commerce's National Bureau of Standards which developed a special TvTime system, would allow the networks to broadcast encoded information on one line of the blanking interval (the black line between TV images seen when the picture rolls.)

"Only viewers with special equipment on their television sets would receive the information broadcast by the networks with National Bureau of Standards supervision," Secretary Peterson said. "This broadcast signal, called NBS TvTime, in no way interrupts or affects the quality of the normal TV picture."

Special electronic equipment at the broadcast station and complementary equipment on the television set allow information to be encoded and decoded to provide useful information in caption form on the television screen. Only specially equipped sets can decode the signal. Viewers with normal sets will not see the captions.

Accurate information

As the national laboratory charged with the dissemination of standard time and frequency, the National Bureau of Standards developed the system to get accurate information to the thousands of commercial and scientific institutions which require precise time and frequency — among these, aviators and navigators, the power industry, and the broadcast networks themselves. Time-of-day information can be broadcast to one millionth of a second accuracy.

But many important spin-off applications have already been tested or are under investigation.

In addition to time and frequency, the signals will provide a means of captioning television programs for the deaf or for foreign-speaking audiences. Channel identification, weather and disaster information, and other important information could also be transmitted by the NBS TvTime system. The signals can be used to automatically reset electric clocks after a power failure, and can help analyze power failures on a continent-wide basis. They can be used to accurately determine position on the earth and are useful for many computer and business operations.

"The NBS TvTime System could provide the nation with highly accurate time and frequency information at extremely low costs," Secretary Peterson said. "In cooperation with the major TV networks, both public and private,

this information could be brought to users at a fraction of the cost of the current practice of maintaining separate atomic clocks in many locations."

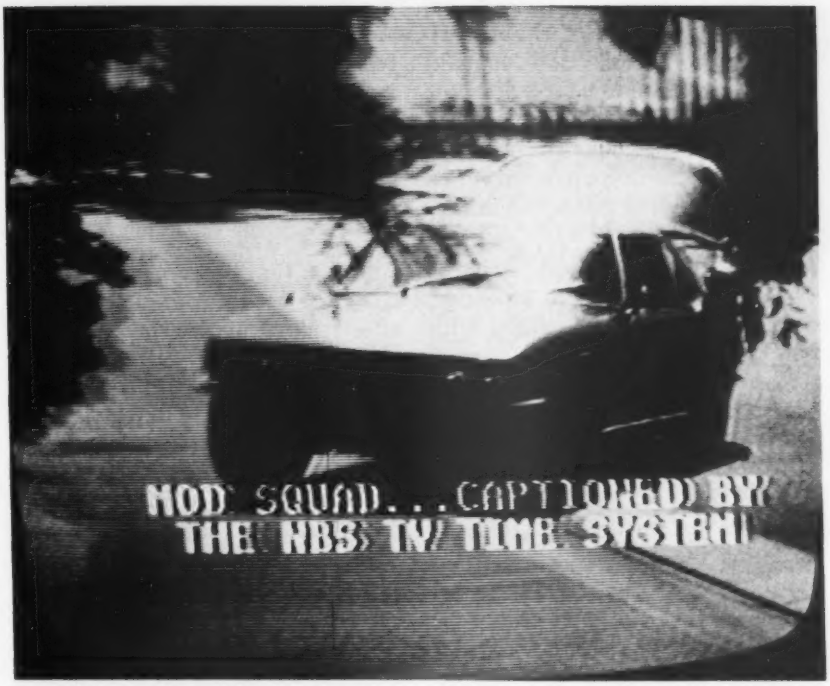
In addition to the dissemination of accurate time, the technology developed for the TvTime System will make possible other public services. One of these is the captioning of television programs for the nation's hearing impaired. In February of 1972, the National Bureau of Standards, with the help of the American Broadcasting Company, displayed this capability before a large audience of deaf students at Gallaudet College in Washington, D.C., on the ABC show "Mod Squad."

"The public benefit—both social and economic—which could accrue from TV captioning would be tremendous," Secretary Peterson said.

NBS has developed this system because of its responsibility to provide the nation with accurate frequency and time standards and make them available to the public at minimum cost.

The primary standard of frequency and time is the NBS Atomic Clock System maintained at the Boulder (Colorado) laboratories, where TvTime was developed. Presently these standards are disseminated to users via radio broadcast (which are inexpensive but less accurate) and by portable atomic clocks (highly accurate but costly). The TvTime System will provide high accuracy at relatively low cost to the user.

The National Bureau of Standards will supply the major public and private networks with the equipment needed to originate timing signals. Local stations will have the option of passing the network signals on to users, or originating TvTime signals themselves under FCC and NBS supervision. Users of the system will need special decoders built into or added onto their receivers. The cost depends on the features desired; that is, time signals, captions, channel identification, etc.



CAPTIONS FOR THE DEAF—*TvTime makes possible the captioning of television programs for the deaf. National Bureau of Standards, with the help of the American Broadcasting Company, has already displayed this capability before an audience of deaf students at Gallaudet College in Washington, D.C., on the "Mod Squad."*

As provided by the TV station, information, channel identification and captions would be displayed as small numbers and letters on the TV screen. The time display is accurate to a few thousandths of a second. Time-of-day information accurate to thousandths of a second would be available with an optional high-accuracy decoder. A frequency reference at 1 MHz, accurate to one part in 100 billion, is also available at the receiver.

The TvTimer System can transmit up to 600 words per minute, which is more than that required for captions. The excess capacity will be available for other purposes, such as communications between network and affiliate.

28 Bills Passed By 92nd Congress To Affect Fisheries, Conservation

Twenty-eight bills passed by the 92nd Congress will, either through the assignment of direct responsibilities or by virtue of indirect involvement, affect the future of the nation's marine, fishery and conservation efforts. Several Federal Departments and agencies have also been vested with new or expanded responsibilities covering a multitude of environmental issues as a result of the legislation.

In order of date of passage, these bills include:

Public Law 92-63, Aug. 4, 1971 — "The Vessel Bridge-to-Bridge Radio-telephone Act" requires that vessels, including fishing vessels, dredges, and floating plants be equipped with short-range, bridge-to-bridge radio-telephones for the exchange of navigational information to avert collisions.

P.L. 92-75, Aug. 10, 1971—"The Federal Boat Safety Act of 1971" authorizes the issuance of regulations and standards by the Coast Guard for the manufacture and

the safe operation of recreational boats, the approval of State boating safety programs, and the making of grants-in-aid to States for the purpose of carrying out boating safety programs. The Act also authorizes the appointment of a National Boating Safety Council.

P.L. 92-87, Aug. 11, 1971 — Amends the Northwest Atlantic Fisheries Act of 1950, as amended, to bring the Act into accord with two new Protocols to the International Convention for the Northwest Atlantic Fisheries (ICNAF). These simplify the entry into force of ICNAF proposals and authorize ICNAF to propose international measures for enforcement of conservation regulations.

P.L. 92-125, Aug. 16, 1971—Establishes the National Advisory Committee on the Oceans and Atmosphere in the form of a committee of 25 members to continually review the progress of marine and atmospheric science and service programs of the United States and report activities to the President and Congress.

P.L. 92-181, Dec. 10, 1971—"The Farm Credit Act of 1971" seeks to provide an adequate and flexible flow of money into rural areas. It authorizes the recognition of fish cooperatives as within existing agricultural cooperative systems, and broadens the opportunities for borrowing by producers or harvesters of aquatic products (i.e. fishermen) and associations thereof.

P.L. 92-203, Dec. 18, 1971—"The Alaska Native Claims Settlement Act" extinguishes the aboriginal land claims of Alaska natives and provides a settlement of $962,500,000 as well as a conveyance of 40 million acres of land. All valid existing rights are protected, as well as a petroleum reserve, wildlife refuges, and national forests. The Act requires the identification of certain easements and allows preservation of such to fulfill U.S. treaty commitments in the Pribilof Islands.

P.L. 92-205, Dec. 18, 1971—"The Weather Modification Reporting Act" forbids engaging in or attempting to engage in any weather modification activity in the United States unless reported in a specified form to the Secretary of Commerce. Violators of the Act can be fined up to $10,000.

P.L. 92-219, Dec. 23, 1971 — Amends the Fishermen's Protective Act of 1967 to increase the effectiveness of international fishery conservation programs by granting authority to the President to prohibit the importation of fishery products from countries fishing contrary to multilateral international conservation regimes to which the United States is a party.

P.L. 92-340, July 10, 1972 — "The Ports and Waterways Safety Act of 1972" is designed to cope with the increasing safety hazards of maritime transportation and with the pollution problems resulting from operation and casualties of vessels carrying oil or other hazardous substances in bulk. The Act also calls for the development of safety procedures by the Coast Guard that will prevent damage or loss of vessels, waterside structures, and navigable waters, including the living resources within those waters.

P.L. 92-402, Aug. 22, 1972—The Maritime Appropriations Act authorizes the Secretary of Commerce to transfer certain surplus Liberty Ships to States for use as offshore artificial reefs for the conservation of marine life. The States that wish to use those ships for artificial reefs must receive permission in advance from the Secretary for each such usage, and must agree to required terms and regulations.

P.L. 92-444, Sept. 29, 1972 — "The Central, Western, and South Pacific Fisheries Development Act" authorizes a $3 million Federal expenditure on a 3-year program for development of tuna and other latent fisheries in the designated areas of the Pacific Ocean. The Act provides for exploration and stock assessment of fish, improvement of harvesting methods, gear development, biological resource monitoring, and economic evaluations of the potential for these fisheries in such areas.

P.L. 92-471, Oct. 9, 1972—An amendment to the North Pacific Fisheries Act of 1954 provides, among other things, that representatives of the United States serving as Commissioners on the International Convention for the High Seas Fisheries of the North Pacific Ocean shall be appointed by the President for a term not to exceed four years and are eligible for reappointment. Not more than four Commissioners are to represent the United States, one of whom is to be an official of the U.S. Government. The other three are to be chosen from States that maintain a substantial fishery in the Convention area.

P.L. 92-500, Oct. 18, 1972—"The Federal Water Pollution Control Act Amendments of 1972" institutes a major change in the enforcement mechanism of the Federal water pollution control program—from water quality standards to effluent limits. The legislation is directed at a zero discharge of effluents into U.S. waters by 1977, following a far-reaching program of technological and economic research and development. It also vests responsibility for issuing discharge permits in the Environmental Protection Agency (EPA) or in a State if EPA consents.

P.L. 92-504, Oct. 18, 1972—An amendment to the Sockeye Salmon or Pink Salmon Fishing Act of 1947 authorizes the appropriation of $7 million for the U.S. share of funds required for restoration and extension of the sockeye and pink salmon runs in the Fraser River system. Pursuant to international agreement, Canada will provide matching funds for the same program. The money will be administered by the International Pacific Salmon Fisheries Commission over

the course of a 16-year period.

P.L. 92-507, Oct. 19, 1972—"The Federal Ship Financing Act of 1972" seeks to expedite procedures relating to vessel mortgage guarantees, simplify paperwork, and better meet current industry needs for investment capital. It provides major refinancing authority to make additional resources available for modernization and expansion of the U.S. domestic fleet.

P.L. 92-516, Oct. 21, 1972—"The Federal Environmental Pesticide Control Act of 1972" revises the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to prohibit the misuse of a pesticide and to regulate pesticides moving in intrastate commerce. (Only interstate commerce was regulated by FIFRA.) The Act provides for removal from the market of certain hazardous pesticides, penalties for misuse or nonregistration of pesticides, and controls on interstate or intrastate traffic in such products.

P.L. 92-522, Oct. 21, 1972—"The Marine Mammal Protection Act of 1972" sets U.S. guidelines for the conservation and protection of marine mammals. It is to be administered by the Secretary of Commerce with respect to whales, porpoises, seals, and sea lions; and by the Secretary of the Interior for sea otters, walruses, manatees, and polar bears. It imposes a permanent moratorium, subject to certain exemptions and exceptions, on the taking and importation of the animals. A permit system is provided for most allowed takings and importations, pursuant to regulations. The Departments of Commerce and Interior share responsibility for a wide range of duties related to the safekeeping of the mammals under their separate jurisdictions. These include implementation of regulations, scientific research, technological research, enforcement and surveillance measures, and cooperative arrangements with States and conservation groups.

P.L. 92-532, Oct. 23, 1972—"The Marine Protection, Research, and Sanctuaries Act of 1972" (generally referred to as the "Ocean Dumping Act") sets regulations on the transportation from the United States of material intended for dumping into the oceans or other waters under U.S. jurisdiction as well as on the actual dumping of material into such waters. Both the Administrator of the Environmental Protection Agency and the Secretary of the Army are empowered to issue permits for transportation or dumping. The Secretary of Commerce has primary responsibility for programs of research involving the effects of ocean dumping and the long-range effects of pollution, overfishing, and man-induced changes of ocean ecosystems. In addition, he is responsible for the designation of marine sanctuaries for, among other things, the protection of coastal and offshore areas for their conservation, recreational, ecological, and aesthetic values.

P.L. 92-544, Oct. 25, 1972—Authorizes the appropriation of funds for several Government departments and agencies, including Commerce, for fiscal year 1973.

P.L. 92-565, Oct. 25, 1972—Authorizes certain boundary agreements between Maryland and Virginia. It directs the Secretary of Commerce to survey and mark the seaward Maryland-Virginia boundary line and as much of the interior boundary as the Secretary considers necessary. This includes the 7-mile portion of the boundary line in Upper Pocomoke Sound and the boundary from Assateague Island extending seawards.

P.L. 92-567, Oct. 25, 1972 — Amends an earlier Act to increase the appropriation authorization for the operation of the National Advisory Committee on Oceans and Atmosphere from $200,000 to $400,000 for each of the fiscal years 1973, 1974, and 1975.

P.L. 92-569, Oct. 26, 1972 — Amends the Fishermen's Protective Act of 1967 to expedite reimbursement to owners of U.S. fishing vessels for fines, license fees, or other such charges incurred as a result of illegal seizures by foreign countries. It also strengthens provisions for seeking collection of such reimbursed amounts from the foreign countries involved.

P.L. 92-583, Oct. 27, 1972—"The Coastal Zone Management Act of 1972" establishes a national policy and initiates a national program for management, beneficial use, protection, and development of the Nation's coastal zones, and charges the Commerce Department with its administration. Required by the Act are cooperative arrangements with other Federal agencies and with the States for sweeping reforms in the management of the coastal zone.

P.L. 92-588, Oct. 27, 1972—Authorizes an agreement between North Carolina and Virginia to establish a lateral seaward boundary. It directs the Secretary of Commerce to survey and mark the seaward and interior boundaries.

P.L. 92-590, Oct. 27, 1972—Extends provisions of the Commercial Fisheries Research and Development Act of 1964, as amended, for research and development of conservation measures by coordinated State-Federal efforts directed toward commercial fishery resources of the Nation. This extension of the Act authorizes Federal financial assistance to State efforts for five more years. It increases the authorization of disaster funds from $650,000 to $1.5 million per year.

P.L. 92-594, Oct. 27, 1972 — Amends section 7 of the Fishermen's Protective Act of 1967 to continue its provisions, until 1977, for reimbursement of certain losses and costs other than fines, license fees, or other such charges incurred by owners, resulting from seizure of U.S. fishing vessels by foreign countries.

P.L. 92-601, Oct. 27, 1972—Prohibits the use of certain small vessels (less than five net tons) in U.S. fisheries for a five-year period beginning on the date of enact-

ment. The effect of the bill would be that small fishing boats that have been prohibited from a fishery of a foreign nation would not be permitted to enter a similar fishery of the United States.

P.L. 92-604, Oct. 31, 1972—Extends until 1977 the program authorized under previous legislation for control of jellyfish and other such pests in U.S. coastal waters. The Act authorizes $400,000 per year for the control program.

—NOAA

U.S., USSR Fishery Experts Agree To Conserve Certain Food Species

U.S. and USSR fisheries experts agreed in a recent meeting in Moscow that many species of food fish caught in waters off Oregon, Washington, southern British Columbia, in the Gulf of Alaska, and in the Bering Sea are overfished and that there is a pressing need for cooperative conservation measures.

Heading the U.S. delegation was Dr. D. L. Alverson, Director of the National Marine Fisheries Service Northwest Fisheries Center at Seattle, Wash. The Service is part of Commerce's National Oceanic and Atmospheric Administration.

In a series of informal discussions, the group exchanged statistical and biological information on fish, proposed plans for joint research studies, recommended conservation regulations for a number of marine species of mutual interest, and made plans for future cooperative research. Of paramount concern to the scientists was the status of such valuable commercial species as crabs, flounders, herring, Pacific hake and ocean perch, pollock, rockfish, and sablefish (black cod).

The scientists agreed that:

- Ocean perch stocks off Oregon, Washington, southern British Columbia, and the eastern Bering Sea are in a depleted state on the basis of comparisons of catches with fishery effort expended, low catches, and biological characteristics noted in scientific study of specimens.
- Hake stocks off the coasts of California, Oregon, and Washington, have declined to somewhat lower than average levels, probably as a result of fishing and poor spawning.
- Herring stocks have declined sharply in the eastern Bering Sea. Pollock catches have risen significantly in recent years in the same area, as evidenced by the total current harvest of 3½ billion pounds.
- Rockfish stocks are in a most unsatisfactory state in most areas of the northeastern Pacific.
- Sablefish have been overfished in the Bering Sea and are now under heavy exploitation in the northeastern Pacific. Yellowfish flounder stocks also are in trouble for the same reasons.
- Crabs in the Bering Sea are presently subjected to such heavy exploitation that continued protection is necessary for king crabs, and caution must be exercised in relation to tanner crab fishing.

As a result of their evaluations, the scientists recommended that joint regulations be established as soon as feasible to lower the fishing levels for ocean perch, rockfish, sablefish, and yellowfin flounder; that the level of hake fishing should be watched carefully until a better rate of population renewal is achieved; that fishing for pollock, catches of which are seen to be approaching the maximum expected yield, should be limited; and that fishing for herring must be limited pending more intensive scientific investigations of Bering Sea stocks.

These findings and advice will be presented to government administrators of fisheries affairs in both the USSR and the U.S. They will be considered for inclusion in joint conservation measures the scientists hope will be proposed at government-to-government meetings scheduled for early 1973 in Moscow.

Also discussed at the joint meetings were two Soviet research cruises scheduled for 1973 off the California coast, to be coordinated with similar U.S. activities. It will be recommended that American scientists participate in the voyages.

Part of the agenda was devoted to joint discussions of the anchovy resource off California and Mexico which has, in recent years, caught the attention of the Soviet fishing fleet.

—NOAA

Agnes Probe Finds People Performed Well; Need Better Warning Delivery

Performance of people manning the nation's storm warning system is rated good and in some cases outstanding but better delivery of warnings to the public during disasters is necessary, according to a panel of experts who recently reviewed the handling of last June's tropical storm Agnes.

A panel of the National Advisory Committee on Oceans and Atmosphere (NACOA) also urged efforts to improve public response to warnings and specific improvements which could be made with available technology. NACOA is a Presidentially-appointed oversight committee whose duties include advising the Secretary of Commerce on the performance of Commerce's National Oceanic and Atmospheric Administration.

The panel's findings are contained in a report requested by

NOAA Administrator Dr. Robert M. White. The storm, worst natural disaster in the nation's history in property damage, killed 118 persons and caused $3.5 billion damage.

"NACOA's judgment is that the performance of NOAA, including its National Weather Service, was good," the panel said. Taxed to the limits of its capacity, the system appears to have barely coped with the behavior of a most exceptional storm. What pulled it through were the people. But we do worry about the next time."

Reliable system

The panel found that even with the outstanding performance of NOAA, prodigious property damage and the loss of life could not have been avoided in the case of a storm such as Agnes. But it highlighted the need for a reliable system for delivery of warnings, a civil preparedness organization to cope with emergencies, and much greater public understanding and response.

Responding to the panel's report, Dr. White said:

"Every recommendation will be thoroughly considered as we plan improvements in our nation's disaster warning system. This report serves as an excellent basis for examining in great detail the needs of our present observation, communication, and warning delivery systems. Many of the recommendations call for joint action by several agencies of the Federal Government. It is my intention to work closely with them in analyzing these recommendations to insure that the necessary steps are taken."

The panel, composed of six distinguished members, with William D. Carey, vice-president of Arthur D. Little, Inc., serving as chairman, also said in its report:

"The national warning system is not geared—and could not be—to exceptional storms like Agnes. The probability of repeat performance at frequent intervals is very low and the panel therefore takes the position that the costs to establish a failsafe warning system scaled to disasters of an exceptional intensity would be unacceptable. A residual risk has to be accepted. But what this argues strongly for is a large and determined effort to bring the reliability of the system we do have up to the highest standards.

"We have built a sophisticated weather intelligence system, but our understanding of how to induce appropriate public response is so rudimentary it can hardly be said to exist," the report points out. "The nation's programs to reduce the public's exposure to a danger are haphazard and in some cases contradictory." The document pointed out that "the whole burden of a disaster warning system effectiveness does not rest upon NOAA . . . and in fact is quite diffuse."

Turning to forecasting performance, the panel recommended that research on the Weather Service's numerical forecast guidance model be pressed to heighten capability of forecasting mesoscale phenomena; that improvements in forecasting and observing amounts and locations of rainfall be pressed; and that a fresh look be taken at the flash-flood alarm system with attention to automated alarm and secondary methods of observation.

It is recommended that NOAA examine its procedures underlying flash-flood warnings to make them more capable of triggering action, and that it work with other government agencies to reduce warning ambiguities.

Emergency warnings

The NACOA group cited NOAA's responsibility to make sure that appropriate action agencies receive and understand emergency warnings.

It recommended a monitoring component to sense public response and permit feedback, and that warning terminology be modified to avoid possible misunderstanding.

Concerning the use of technology, the panel recommended investigation of the possibilities of improved data validation, update and assimilation procedures which would permit models to be used in more timely fashion during sensitive periods in weather formation.

It recommended that satellite observations be used as a check against theoretical computer forecasts; that radar observations of rainfall be digitized and centrally processed; that separate requirements for flash floods and mainstem floods be reflected, if necessary, in separate river gage systems; that flash-flood preparedness plans be pursued; and that communication and information-flow technology at the disseminating level be examined with a view to improvement.

—NOAA

Second Largest Tuna Catch Made Off West Coast During 1972

Commercial tuna fisherman along the West Coast landed the second largest haul of albacore or white-meat tuna in 1972, according to Philip M. Roedel, Director of the National Marine Fisheries Services of Commerce's National Oceanic and Atmospheric Administration.

The haul was 34,000 tons. The record was set in 1950 when 36,000 tons were caught.

Traditionally, albacore catches are made off California, Oregon, Washington, and British Columbia from July through October. The total catch for the Oregon-Washington-British Columbia coast showed a record 22,200 tons of albacore, representing a 91 percent increase over 1971 for the area. Off California, although the catch of 11,500 tons was down this year by 36 percent, it remained higher than individual catches of the other three sections.

—NOAA

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Raspberry harvester. A mobile carriage has vertical bush engaging frames in opposed relation to engage opposite sides of the bushes as the carriage advances along a crop row. The frames are divided horizontally into upper and lower sections. The frames are further divided vertically into leading and trailing sections. The frame sections are vertically pivoted at their leading ends and have rearwardly extending, vertically-spaced flexible bush engaging rods. Each pair of opposed sections has one section that is spring biased inwardly toward the side of the bush, while the opposed section is vibratorily oscillated about its pivot to engage and shake the opposite side of the bush. The leading sections on one side of the machine are oscillated, while the trailing sections on the opposite side are oscillated. Separate and independent drive motors oscillate driven frame sections on opposite sides of the machines; while the upper and lower driven frame sections can be oscillated in different and variable phase sequence. Patent 3,703,072 issued to Albert W. Patzlaff, Holland, Mich., and assigned to Blueberry Equipment, Inc., South Haven, Mich.

Vehicle pollution control unit. An apparatus for controlling the pollutants in engine exhaust gases. A housing contains a hollow tube having heat transfer plates attached which extend the length of the housing. Baffles are positioned along the length of the housing between the heat transfer plates. The housing is capped on both ends and is provided with an inlet and outlet pipe for the exhaust gases to pass through. A fluid coolant is circulated through the tube to cool the exhaust gases within the housing. Patent No. 3,700,029 issued to Paul H. Thrun, 5946 Kessler Ridge Dr., Indianapolis, Ind.

Automatic brake-safety control. A braking system for motor vehicles includes first means for applying substantially the same braking effect to the front and rear wheels at substantially the same time when the vehicle is moving in a straight line and second means for reducing the braking effect on the front wheels are turned, the reduction being approximately in proportion to the degree of turn of the front wheels. Patent No. 3,706,352 issued to Colin C. Ferguson and William R. F. Bolton, 1 Cox Street, P.O. Box 279, Toowoomba, Queensland 4350, Australia.

Patents numbering 2,275,258 to 2,728,912 expired during December, 1972. Upon the expiration of the 17-year period covered by the patent, the invention passes into the public domain and may be made, used or sold by the public without payment of any royalty, or infringement of the inventors exclusice patent rights.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette.* Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.

Science Calendar

Jan. 15-19—Chicago, Ill.—Pheasant Run Lodge, Managing for Quality. Sponsored by American Society for Quality Control.

Jan. 23-25—Philadelphia, Pa.—Bellevue-Stratford Hotel. 1973 Annual Reliability and Maintainability Symposium. Sponsored by American Society for Quality Control, ASME, AIIE, SAE.

March 14-16—Chicago, Ill.—Conrad Hilton Hotel. Industrial Water & Pollution Conference and Exposition. Sponsored by Water and Wastewater Equipment Manufacturers Assn.

March 19-21—Gaithersburg, Md.—National Bureau of Standards. National Roofing Technology Conference.

March 23-25—Hill City, Kan.—Mid-America New Ideas Fair, Graham County Fair Grounds. Information: Hill City Chamber of Commerce, Hill City, Kan.

March 27 — Gaithersburg, Md. — National Bureau of Standards. ANSI Committee on Consumer Education. Contact: T. W. Lashof, 921-2983.

April 4—Gaithersburg, Md. — National Bureau of Standards. Minicomputer Symposium. Contact: Eric Swarthe, 921-3545.

April 4-7 — San Mateo, Calif. — Northern California Industrial Exposition, Hall of Inventions. Information: Northern California Industrial Exposition, Freeman and Associates, 77 Jack London Square, Oakland, Calif.

April 9-10 — Gaithersburg, Md. — National Bureau of Standards. Federal Information Resources Conference.

April 23-26 — Washington, D.C. — Sheraton Park Hotel. American Physical Society. Contact: K. G. Kessler, 921-2001, or W. R. Tilley, 921-2493.

May 8-9—Gaithersburg, Md.—National Bureau of Standards. Color & Appearance Symposium. Contact: T. W. Lashof, 921-2983.

June 8-10—Redwood Falls, Minn.—Minnesota Inventors Congress. Information: Minnesota Inventors Congress, P.O. Box 71, Redwood Falls, Minn., 56283.

INTERNATIONAL COMMERCE REPORT

- **Anti-pollution technology mission reports from E. Europe**
- **Economic trends in six nations**
- **New books and reports in the trade field**
- **Calendar of events for U.S. world traders**
- **List of promotions to be held overseas by Commerce**
- **Investment, sales opportunities worldwide**

Investment Outflow Curbs Eased For 1973

The Office of Foreign Direct Investments has announced three changes in its Foreign Direct Investment Program for 1973.

► Credits extended by direct investors to their affiliated foreign nationals with respect to the export sale or lease of qualifying U.S. goods and services on normal commercial terms will be exempted.

► The alternative minimum positive direct investment allowables (Sections 503 and 507 of the Regulations) will be consolidated into a single global minimum allowable of $6 million per year.

► As in the 1971 and 1972 Program years, direct investors will be allowed to count certain transactions effected in the first two months of 1974 for purposes of computing 1973 compliance.

William V. Hoyt, OFDI Director, noted that the consolidation of the alternative minimum allowables would simplify the reporting and compliance burden imposed on many smaller investors whose annual investment flows are relatively modest.

Hoyt said that OFDI is preparing proposed regulations with the objective of exempting qualifying export credits entirely within the regulations, thereby relieving direct investors of the need to obtain specific authorization. Hoyt noted, however, that in the complex field of export credit it may be necessary to retain some use of the specific authorizations procedure.

Hoyt observed that the exemption of qualifying export credits should eliminate any substantial distinction between the Foreign Direct Investment Program and the other U.S. capital controls in the treatment of extension of export financing. As a result of the exemption, there will be no Program restraint on direct investors' extensions of credit on normal commercial terms for exports of qualifying U.S. goods and services to their foreign affiliates. Relief under the exemption will be similar to that previously available by specific authorization, but will be expanded to include qualifying U.S. services and lease transactions, and the exemption will not be limited by the year-to-year increase in exports to affiliated foreign nationals.

Since extensions of qualifying export credits would be exempt from Program charge after December 31, 1972, repayments of such credits to the direct investor after that date will not result in negative transfers of capital for 1973 or subsequent compliance years. No change will be made in existing regulations permitting direct investors to elect to count certain transactions entered into in January or February of 1973, including repayments of trade credit to the direct investor, for purposes of computing 1972 compliance. Hoyt emphasized, however, that direct investors using such repayments for 1972 compliance purposes would be subject in 1973 and subsequent years to appropriate deemed transfer of capital charges, to take the place of net charges they would have incurred if the present regulations were extended unchanged.

Anti-Pollution Technology Sought By East Europeans

"Environmental control is a multinational endeavor. Polluted air and polluted water pay no attention to national borders. The U.S. has a decade of experience in arresting pollution. Technology developed by U.S. industries on a commercial scale to fight pollution is working effectively in many parts of the world.

"Countries should apply proven technology now and not repeat the expensive research already completed elsewhere. Countries should join their resources to find solutions to so far unresolved problems. Cooperation between nations and the pooling of resources should prove very effective here."

So summarized the leader of a recent U.S. trade mission to two countries in Eastern Europe and to the Austrian commercial gateway to that area. He was emphasizing that these impressions, received from discussions in the East, strongly confirm the growing marketplace importance of U.S. anti-pollution equipment and technology.

Instruments needed

"The market for instrumentation exists now. The 'dry' pollution control market is some two to five years away, and that for 'wet' items is perhaps four years off," said the Commerce Department's Ferenc Molnar, who led the mission to Austria, Poland and Czechoslovakia late last fall.

Six of the eight firms represented in the group are instrument or equipment manufacturers, one performs technical and professional consultant service, the other is in the international licensing field.

The mission was in Warsaw when the recently established Joint American-Polish Trade Commission was holding its second sessions in Washington and reaching accord on several commercial and economic agreements.

The agreements, including reciprocal availability of trade credits and expanded business facilities, are expected to substantially increase trade between the two countries.

Only a few days earlier, the Commerce Department had opened in Warsaw the first U.S. Trade Development and Technical Information Office in Eastern Europe.

Under Poland's current five-year plan, the newly established Ministry of Regional Planning and Environmental Control has been allocated funds to start reducing air and water pollution. Some 800 new sewage treatment units are to be constructed and 200 filters installed. A computerized environment-protection center is under construction in the Silesian mining region of Katowice.

The businessmen believe that U.S. products and know-how will be needed to overcome existing problems in Poland, although a hard currency shortage to some extent limits sales opportunities.

From his observations in Prague, Rui R. Lopes of Technical World, Inc., says: "Immediate sales did not materialize due to the complexities of doing business in Czechoslovakia and the need to

AFTER SEMINAR WITH POLISH LEADERS—*Members of the U.S. environmental control mission are shown at Polish Chamber of Commerce in Warsaw, where more than 100 persons heard them discuss U.S. approaches to pollution abatement.*

PRESS CONFERENCE AT NEW U.S. OFFICE—*A dozen representatives of the Polish general and technical press listen to Mission leader Ferenc Molnar at newly-opened U.S. Trade Development and Technical Information Office in Warsaw.*

meet the competition from West European firms which have been doing business here for decades. Mission members believe that volume sales of specific instruments and equipment for air and water pollution monitoring and control are some 12 to 24 months away."

James F. Zievers, Industrial Filter & Pump Co., has a suggestion: One possible approach to selling in Czechoslovąkia might be the presentation of specific case histories on recovery systems, for instance, stating problems in terms of flow and contaminants, followed by a description of operating costs in terms of materials and labor and recovery valves required.

Many inquiries were received, he said, for all types of measuring instruments and sampling systems, process control systems, and solid waste treatment systems; more specifically, for such items as sulfur dioxide monitors and removal processes, flame ionization detectors, and sludge pumps.

A total of 24 negotiations were initiated during the mission visit, for sales representation, licensing, or joint venture agreements.

In each country, the group met with chambers of commerce and the trade Ministries, and in Warsaw and Prague, with the appropriate foreign trade enterprises. Technical seminar presentations by mission participants were well attended in all three capitals.

Mission member M. V. Botts, North American Rockwell, drew this overall picture: "Eastern Europe should be considered a potential sulfur dioxide system sales and licensing area. Its SO_2 problems are signficantly worse than ours. Austria and Poland are potential near-term users of U.S. technology either through sales or license arrangements. Czechoslovakia expressed interest also in licensing U.S. anti-pollution technology."

Austria is well situated for contacts with both East and West Europe. Several mission members plan to return to Vienna to develop leads resulting from their interviews while there. Reduction of sulfur dioxide from the many smelters is of major concern among the country's pollution problems.

Participating firms, in addition to those already mentioned, and their representatives were: Ametek, Inc., Ferenc J. Schmidt; Dvorkovitz & Associates, Harding Ballough; General Resource Corp., Joseph Pausch; Stanley Consultants, A. Paul Theirot, Jr.; and Thermo Electron Corp., Jerry P. Davis.

IN CZECHOSLOVAKIA—*At a meeting in Prague, Mission member A. Paul Theirot, Jr., of Stanley Consultants, discusses a problem with an official of the Czechoslovakian environmental control organization.*

CHECKING IT OUT—*Malcom D. Lipscomb (standing), representing several Mississippi firms, and Paul Feldman, a Salvadorean representing several local firms, figure out the possibilities for some of their clients to form joint ventures at the recent Fifth International Fair of El Salvador. Three U.S. States and 16 firms representing 48 companies and state organizations took part in the show.*

Fairs In Switzerland, USSR, Hungary Invite U.S. Firms To Exhibit

Interlitmash—73, Moscow, Sept. 7-21. In conjunction with the 15th International Congress of Foundrymen, the USSR has scheduled an international specialized exhibition of foundry production equipment. The exhibition is sponsored jointly by the USSR Chamber of Commerce and Industry and the USSR Ministry of Machine Tool and Tool Building Industry. Commodities included in the exhibition will include foundry technological equipment, melting and furnace equipment, pattern-flask equipment, transport systems, instrumentation and automatic control systems, ventilation and sanitation equipment, safety equipment. Interested U.S. firms should write to the U.S. Embassy in Moscow or directly to the USSR Chamber of Commerce and Industry at the following address: Grigoriy A. Karpel, Deputy Director General, Foreign Exhibitions in the USSR, The USSR Chamber of Commerce and Industry Sokolnicheskiy Val 1-a Moscow 107232.

Petroleum/petrochemical equipment. Hungary, May 18-28. The remarkable expansion of the Hungarian Oil Industry has stimulated a substantial growth in imports and a recent market research study projects that the Hungarian Petroleum Industry will purchase during 1973-75 an estimated $110 million worth of machinery, equipment and instrumentation for the exploration, drilling, production, refining, transportation and storage of oil and gas. Besides Hungarians, the Budapest International Fair will concentrate on these products, and also is expected to attract buyers and end-users from other major Eastern European countries. Call A. Hertzberg at 202-967-2801.

School Equipment—73, Moscow, Nov. 22-Dec. 2. The USSR Chamber of Commerce and Industry is inviting U.S. firms to exhibit at the international specialized exhibition of school equipment to be held at Sokolniki Park in Moscow. Commodities covered by the show consist of textbooks, teaching manuals, audio-visual equipment, schoolroom furniture, special education equipment, radio apparatus and television equipment, physical education equipment. Interested U.S. firms should contact either the U.S. Embassy in Moscow or the USSR Chamber of Commerce and Industry at the following address: Grigoriy A. Karpel, Deputy General Director—Foreign Exhibitions in the USSR. The USSR Chamber of Commerce and Industry, Sokolnicheskiy Val, 1-a Moscow 107232.

Intertapis 1973, St. Gall, Switzerland, Aug. 31-Sept. 3. This international trade fair for carpets, floor coverage and home textile cloth for furniture will be attended only by professional authorized buyers. For details, contact INTEXPO St. Gallen-Messeleitung, St. Gallen (Suisse), Museumstrasse 1 (Tel. 071-24 85 89). For hotel reservations, write: Offizielles Verkehrsbureau St. Gallen, Bahnhofplatz 1a, CH-9001, St. Gallen, Switzerland (Tel. 071-22 62 62).

St. Louis Group Scores At Mexico Trade Center

Floor sales of $130,000 with a $2 million forecast for the next 12 months, two distribution arrangements, six joint ventures and an attendance of 500 — so reads the box score of the "Surprising St. Louis" privately-sponsored exhibition at the U.S. Trade Center in Mexico City, Nov. 13-17.

Peter Fanchi, president of the Federal Barge Lines and vice chairman of the St. Louis Regional Export ExpansionCouncil, led a trade mission of 49 St. Louisans to Mexico City to participate in the first Trade Center Show sponsored by a single metropolitan area.

Cooperating with the St. Louis REEC and the St. Louis Business Services Field Office were the Chamber of Commerce of Metropolitan St. Louis and the World Trade Club of St. Louis.

Worldwide Business Outlook

France Is Growing Fast Despite Inflation Problem

The French economy, although still plagued by inflation, is growing rapidly. This expansion is accompanied by a surging demand for imports, creating new opportunities for U.S. exporters.

Inflation is the number one problem facing French economic policy makers, according to the U.S. Embassy in Paris. Retail prices rose an estimated 5.9 percent in 1972, roughly the same rate of increase registered in 1971. Food prices showed a larger jump over the year (7.3 percent), as a result of both underlying supply and demand factors and increases set under the Common Agricultural Policy of the European Community. Wholesale prices increased at a 5.6 percent annual rate.

Wage-price spiral

The current French inflation is fueled principally by attempts to maintain profit margins at a time when firms are granting large wage increases. The wage-price spiral displays no symptoms of abating. Average hourly wages in manufacturing are swelling at an annual rate of over 11 percent, approximately twice the rate at which productivity is gaining. Moreover, by the second half of this year, there should be little, if any, unused capacity left in the French economy. At that time, France will be faced with excess demand, which will exacerbate the inflationary pressures generated from the supply side.

Under these circumstances, it is doubtful that the rate of retail price increase will decelerate to 5.3 percent this year, as French national accounts experts predict. In any case, the 4 percent target recently set for members of the European Economic Community would be completely out of reach.

Despite inflation, the overall outlook for the French economy is excellent. The strong points in the economic performance picture include the following.

Strong points

► At the end of 1971, most observers expected real GNP to grow less than 5 percent in 1972. The actual figure was around 5.3 percent. The outlook for 1973 is even brighter. This year, the real growth rate should come closer to the 6 percent target of the current French economic plan.

► Rapid growth in 1973 should permit absorption of all new entrants into the labor force although it will not be sufficient to reduce the absolute amount of unemployment. This is in marked contrast to the situation in 1971 when unemployment expanded sharply throughout the year. In 1972, the rate of unemployment leveled off, standing at 2.5 percent in September versus 2.4 percent in December 1971.

► The December 1971 international currency realignment has had a favorable effect on business confidence. In particular, it encouraged businessmen, especially in export related sectors, to revise their investment plans upward. As a result, real plant and equipment expenditures, while not reaching the boom levels of 1969 and 1970, will grow more rapidly than real GNP in 1973. At the same time, consumption expenditures have remained a very strong element of demand.

► Industrial production has been picking up. It rose 5.8 percent in the 12 months ending September 1972. Business opinion surveys point to stronger performance in the months to come. Since last April, orders have gone up steadily while inventories declined. Businessmen are increasingly optimistic about future production prospects. This optimism is reflected on the Paris stock exchange where average share prices increased over 25 percent between January and November.

► The French balance of payments has been strong since 1970, with the balance on current and long-term capital transactions close to equilibrium. Judging by present trends, there should be a surplus this year. The overall balance of trade is expected to be in rough equilibrium in 1973, as compared to a small deficit (around $150 million) in 1972. Gold and foreign exchange reserves reached record levels last year, standing at $8.9 billion on Oct. 31.

Policy has shifted

In the first half of 1972, the French Government pursued moderately expansionary monetary and fiscal policies while maintaining price controls on industrial products and some services. In the face of burgeoning inflationary pressures, policy has now shifted toward a more "neutral" mix.

The rationale for such an orientation is based on the assumptions that: "Spontaneous" factors in the economic situation will produce a strong growth record without fiscal stimulus; deflationary policies would be ineffective in curtailing the "cost push" inflation France is experiencing; and a high rate of inflation is acceptable as long as most other countries are also inflating rapidly and the competitive position of French exports is not endangered.

The budget for 1973 is a balanced one, in which both revenues and expenditures grow at roughly the same rate as gross national product. The budget includes significant new expenditures in the

PARIS TRADE CENTER—*At a Medical Diagnostic Equipment show Sept. 18-21 Carl Goldman demonstrates telephone equipment that monitors heartpacemakers.*

areas of defense, welfare programs, telecommunications, highways and the merchant marine. On the revenue side, there are no major changes in the French tax system.

Monetary policy is concentrating more on curtailing growth of the money supply, which expanded 8.2 percent in the first half of 1971. To this end, the Bank of France has increased the reserve requirements of commercial banks, tightened its open market policy considerably and raised the rediscount rate from 5.75 to 6.5 percent.

Incomes policy continues

The "contractural incomes policy," under which firms in key industrial sectors agree to restrain price increases to an average of 3 percent a year, continues. In July, the Government announced a strengthening of the program through stronger enforcement of price control agreements, a freeze on public utility rates and consultation with other members of the European Community on anti-inflationary policies.

The double exchange market instituted in August 1971 remains in operation. In the market handling official, commercial and some invisible transactions, the parity of the franc is defended within customary margins. All other transactions go through a market where the exchange rate is determined by supply and demand considerations.

The above policies should continue well into 1973. With legislative elections (now likely to be held in the spring), under its belt, the French Government may be willing, however, to introduce some of the unpopular measures, for example tighter control on wages, required to cut down the rate of inflation significantly.

Export growth is playing a key role in the strong performance of the French economy. In 1972, the demand for French exports was buoyed more than expected by strong expansionary trends in the economies of France's principal trading partners and by France's sound competitive position in international markets. The French share of the total import market of its 8 most important trading partners reached 9.6 percent last year, versus 8 percent in 1969.

Considering the rapid rate of expansion of the American economy, it is not surprising that French exports to the United States are burgeoning. They accounted for some 5.6 percent of total exports last year as compared with 5.4 percent in 1971.

The rapid growth of the French economy has been accompanied by a surging demand for imports. In fact, in 1973 the volume of imports is forecast to expand 11-12 percent, about the same as 1972, considerably faster than real GNP. This situation is opening up new opportunities for U.S. exporters.

After shooting up by a record 30 percent in 1970, French imports from the United States declined in 1971 from $1.9 billion to $1.8 billion. At the same time, the U.S. share of the French market dropped from 9.9 to 8.5 percent. In 1972, the U.S. share remained at roughly the same level. It should however, increase this year, once the effects of the Smithsonian currency realignment are felt more fully.

Analysis of the market

The Embassy recently conducted a thorough analysis of the French import market to determine product categories with the highest potential for U.S. exporters. The most promising category, particularly for new to market firms, is mini-computers and computer terminals. The value of electronic data processing installations in France is predicted to rise 100 percent in the 1972-75 period.

Other high-payoff lines include the following: avionic equipment; food processing and packaging equipment; electronic process control instruments; air conditioning machinery; audio-visual equipment; pumps, valves and compressors; medical equipment; automated machine tools and controls; equipment for the metallurgy industry; apparatus for monitoring and controlling industrial and water pollution; mechanized gardening equipment; leisure clothing; and toys and games.

In addition, the Embassy sent letters to 60 American business leaders in France asking them to name specific U.S. products which

could enjoy greater sales in France. By and large they replied with reference to their own particular industries. For example, American building firms agreed that more U.S. specialty products for the home could be sold in France. Such items would include modern plumbing equipment, interior and exterior hardware and textured wall finishes. Others singled out industrial refrigeration machinery, special chemicals, coin-counting machines, high-quality machinery for the steel industry, security systems and hand tools.

Bright future foreseen

Many of the businessmen responding foresaw a bright future for certain U.S. consumer goods. Examples are pleasure boats, camping trailers, peanut butter and, especially, frozen foods.

In the late 1960s, many Frenchmen were highly critical of the role of U.S. investment in their economy. Since then, there has been a marked improvement in the investment climate. During a speech in New York in 1970, President Pompidou emphasized that France welcomes American direct investors. In the intervening period, there have been several well-publicized instances where the French Government turned down investment applications on industrial policy grounds. In the vast majority of cases, however, the record is one of routine approval of applications by U.S. firms to set up subsidiaries in France. The French regional development agency has also opened a special office in New York to promote U.S. investment in France.

This approach on the part of the French Government has the approval of the bulk of the French public. For example, 67 percent of those polled in an opinion survey of French business executives, civil servants and professionals, regard the role of U.S. corporations in the French economy as beneficial. Only 16 percent disagreed.

Steady Increase In Oil Exports Keeps Nigerian Economy Booming

Nigeria's economy is still booming.

According to the U.S. Embassy in Lagos, receipts from oil exports in 1972 ran about one-fourth higher than in 1971 and more than compensated for a continuing slump in agricultural exports.

Both the Federal budget and the balance of trade are in surplus. However, Nigeria has not yet reached the position where all imports can be paid for on a current basis. The deferred payments system which delays release of foreign exchange for most imports until 90-180 days after the arrival of goods is still in effect, but payments remain on schedule under this system. Imports have leveled off, but remain at the 1971 record level.

Inflation has been checked and the steep price increases of recent years eliminated. A new wage freeze has been imposed on government employees.

Indigenization Decree

An "Indigenization Decree" of February 1972 reserves to Nigerian citizens and firms 22 specified small-scale manufacturing and service sectors and requires 40 percent Nigerian participation and minimum levels of paid-in capital or turnover in 33 other medium-scale activities. Although foreign firms affected by the Decree have until March 1974 to comply with its terms, many firms are already taking steps to obtain Nigerian participation in their businesses. In acting quickly these firms hope to find both better Nigerian partners and also obtain some of the scarce local capital before it is committed elsewhere.

Several large foreign-owned enterprises (subject to the 40 percent local participation requirement) are issuing public stock with subscription limited to Nigerian stockholders. Several of these share offerings by long-established foreign firms have been heavily oversubscribed. Other smaller foreign firms are aiming to obtain the requisite level of private Nigerian participation through direct negotiations with prospective Nigerian partners, rather than by "going public."

In general, the two-year "grace period" provided by the Decree is permitting foreign owners to comply with the Decree's provisions without having to dispose of assets at "fire sale" prices. No good estimate is yet available on the total amount of local capital needed to fund the required changeover in ownership. Government officials stress that plans are well advanced for activating a new Industrial and Commercial Bank and for expanding the existing Nigerian Industrial Development Bank to make more capital available to Nigerian investors.

Implementation of Nigeria's current Development Plan is accelerating, at least partially because it is now clear that adequate financing will be available to carry out the Plan's major projects. Contracts have been let for several large roadbuilding projects and plans announced for implementation of other large infrastructure projects.

Looking for bidders

The Federal Government recently invited prequalification of foreign construction firms interested in bidding on construction of 16 airports in Nigeria. The Electric Co. of Nigeria and the Niger Dams Authority have been merged together into the Nigerian Electric and Power Authority which will receive over $75 million in World Bank assistance to expand generation and transmission capacity.

Petroleum exports now dominate

Nigeria's export trade. During the first half of 1972 Nigeria's total exports rose to 336 million Nigerian pounds and oil alone accounted for 82 percent of this amount, compared to 69 percent a year earlier. Non-petroleum exports, mainly agricultural, showed some decline.

Capital goods take over

The consumer spending boom which fueled the record import level of 1971 is tapering off. Total imports for the first half of 1972 showed a tiny drop from the level of early 1971. It appears that the pent-up demand of the immediate postwar years has largely been satisfied and inventories brought back to satisfactory levels. Now, with government capital spending rapidly accelerating, capital goods are expected to comprise a larger share of future imports. It is in this area that U.S. goods are most competitive.

Although the total level of Nigeria's imports remains fairly steady, the first half of 1972 saw a marked shift in their composition. Sizeable increases occurred in imports of automotive vehicles (170 percent) and food products (32 percent), while declines occurred in imports of textile machinery (–59 percent), cotton textiles (–24 percent), and pipes and fittings (–46 percent).

Improvements in the financial situation have permitted further liberalization, but not elimination, of Nigeria's deferred payments system for imports. Foreign exchange is consistently being released on schedule to cover imports of goods subject to 90-180 deferred payment, as well as those few goods payable on sight and large capital goods imports payable over a 1-4 year period.

The Federal Government's success in liquidating the short-term "backlog" of import liabilities in early 1972 was partly responsible for a small overall outflow of foreign exchange during the first half of 1972. By October, however, reserves had again climbed to $365 million, an amount sufficient to cover imports for three months.

Accelerated implementation of the Development Plan is opening large opportunities for exporters. Some of particular interest to American firms are:

► The World Bank-supported expansion of electric power generation and transmission facilities, at an estimated cost of over $100 million.

► A $75 million project to expand Lagos' airport, for which foreign firms have been invited to submit prequalification bids prior to Dec. 29, 1974.

► Numerous highway projects remaining in the government's four-year $420 million program for road construction.

► Proposals for a natural gas liquefication plant and ancillary transportation facilities, with an estimated cost of over $1 billion.

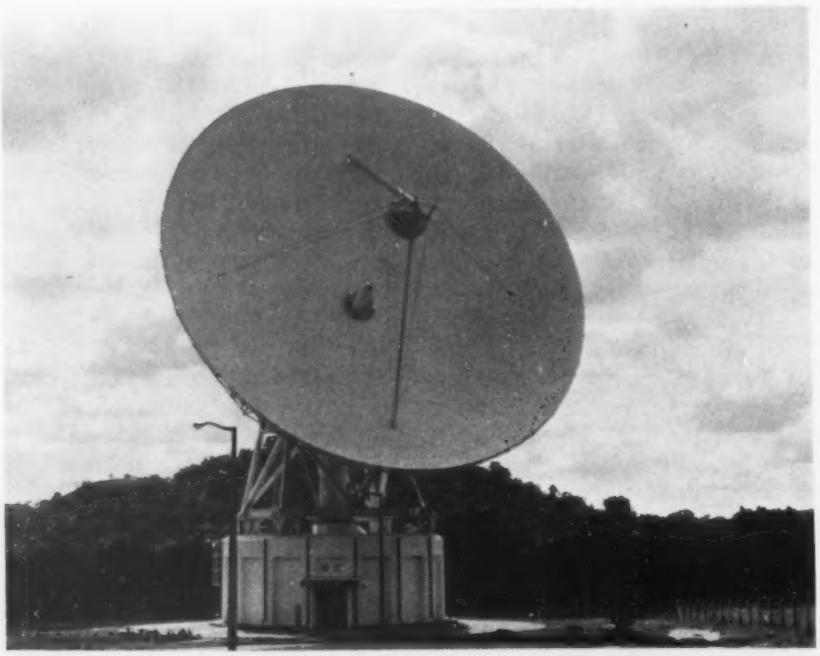
► Skilled management services are also required by some of Nigeria's public corporations (e.g., the recent selection of a U.S. airline to assist in management of Nigeria Airways).

Other opportunities

Other continuing opportunities include wheat and rice, oil field equipment, and computer, transportation and communications equipment. Medical services carry a high priority in development plans. A recent U.S. Department of Commerce-sponsored hospital-medical trade mission found sales opportunities exceeding expectations.

Nigeria's good financial prospects, political stability, and the large internal market are attracting investor interest. Moreover, government investment programs are moving ahead more rapidly; new opportunities are opening as the government seeks foreign partners as associates in joint-ventures.

At the present time the expertise of American firms is particularly relevant to government proposals for joint ventures in shrimp fishing, petrochemicals, fertilizer production, LNG production and distribution, and food processing industries.



FIRST TV FROM NIGERIA—*The Second All-Africa Games are being telecast live from Lagos this month to many African and European nations via Intelsat satellite. GTE International Inc. expanded the capability of Nigeria's satellite communications earth station, above, to make possible the nation's first satellite TV transmission.*

Dutch Economy Slowly Accelerates; Market Will Be Stronger In 1973

The Dutch economy now appears to be emerging, though only slowly, from the conditions of "stagflation" which have prevailed over the past 18 months.

The inflationary element of the picture remains; in fact, Dutch inflation—already one of the most extreme in the developed world—is expected to be more active in 1973. But there are growing indications, reports the U.S. Embassy in The Hague, that the recent slowdown in real GNP, corporate profits, and corporate investment is disappearing.

Real GNP growth for 1972 has been revised upwards to 3.5 percent and the projection for 1973 is 4.5 percent. Real business investment, down 8.5 percent in 1972, should rebound by a comparable figure in 1973.

Despite a steep rise in gross labor costs, profits are being stimulated by a remarkable growth of labor productivity, especially in the industrial sector, and a small strengthening of export demand. The Dutch balance of payments, bolstered of late by short-term capital inflows and sagging imports, should come under some pressure as this economic upturn makes itself felt.

Expect a better market

American exporters to the Netherlands may expect a stronger market in 1973 than was the case last year. Anticipated rises in production and investment bode well for U.S. exports of investment goods and other sophisticated equipment.

Under these expansionary conditions, and given the fact that inflation remains relatively unabated among U.S. competitors, American firms should be able to capitalize on the exchange rate changes of a year ago. The U.S. share of the Dutch market, which fell to 8 percent in guilder value in the first seven months of 1972 owing to the slump in demand for capital goods and the 10 percent lower dollar exchange rate, should revive in 1973 toward the previous level of almost 10 percent.

The change in exchange rates and relatively lower U.S. prices should make certain U.S. products considerably more attractive, especially small and peripheral EDP equipment, smaller pumps and compressors, steam turbines, and electronic service instruments and manufacturing machinery.

Areas of interest

In general, American industry will find the following product areas of most interest for export potential: electronic data processing equipment, particularly peripheral items of software packages; food processing and packaging equipment; environmental control equipment and instrumentation; medical instrumentation; petroleum and gas drilling equipment; security equipment; marine cargo handling equipment; printing and graphic equipment; air, rail, road and marine transportation equipment, particularly for bulk chemicals; and building equipment and supplies.

Rapidly rising incomes and changing patterns of work and leisure are also providing a market for selected American consumer goods and services. High fashion apparel, recreational equipment, do-it-yourself material, and certain kinds of processed foods and beverages will be of increasing interest to the Dutch consumer, although U.S. suppliers will often have to overcome high duties and the transport cost disadvantage.

In addition, American equipment and expertise is very often superior in the various consumer service industries, such as fast cleaners, and vehicle maintenance. Increased Dutch interest in such enterprises gives rise to many opportunities for franchising, joint ventures, or sales of related equipment.

In the current year the Department of Commerce will assist American exporters to the Netherlands by sending a specialized trade mission in offshore drilling equipment.

Public is concerned

The concern of the Dutch public over air, water, and noise pollution continues to increase, and there should be a rapidly growing market for U.S. technology and equipment in this area, both for export and for licensing. The strong Dutch interest in this field was demonstrated by the good response to a charter flight, which the Embassy and the American Chamber of Commerce sponsored, to an American pollution control equipment show at the U.S. Trade Center in Frankfurt last March. For the long run, according to the Economic Ministry, 2 percent of Dutch GNP by 1982, or $1 billion a year, will be spent on environmental control.

The Dutch Government intends to establish a comprehensive water pollution monitoring system on the vast network of rivers and canals which should continue to offer substantial opportunities for American manufacturers of instrumentation systems. The public, through the municipalities, is exercising growing control over environmentally offensive industrial activities. Firms planning to build or expand production facilities in Holland must be prepared to meet increasingly strict pollution requirements and are advised to pay early attention to all local regulations.

The Netherlands provides the fourth largest market for U.S. agricultural exports. In 1971-72 U.S. agricultural exports to the Dutch rose to a record high of $617

TOOL SHOW EXHIBIT GETS ROYAL INSPECTION—*Princess Margriet of the Netherlands, acompanied by her husband, Pieter von Vollenhoven (left), inspects Ex-Cell-O Corporation's new Micromatic hone-forming equipment at the 1972 International Machine Tool Show in Chicago. Explaining the equipment's operation is Dirk Sijmons, a native of the Netherlands and Ex-Cell-O's European sales manager.*

million (including transshipments to other countries). This compares with $549 million for 1970-71.

American firms are expected to continue their solid level of investment expenditures in the Netherlands, which remains a good platform for American business within the expanded EEC as a result of its good location, excellent infrastructure, and equitable economic policies. U.S. corporations' plant and equipment expenditures in Holland amounted to an estimated $293 million in 1972, and are expected to increase to $319 million in 1973.

Investors take note

The early termination of the value added tax on investment will encourage the prospective investor, but he should look carefully at the new selective investment levy proposal introduced by the Government to encourage industrial development in higher unemployment areas in the interior. The levy would apply to new industrial buildings or extensions (40 percent of cost, but less on other new commercial buildings) and on nonbuilding installations (5 percent) in the Provinces of South Holland, Utrecht and part of North Holland. Action is not expected on this bill before next spring.

The interest of Dutch industry in investment, joint ventures, and licensing in the United States continues to grow as a result of the exchange rate changes, rapidly increasing labor costs at home, and the resurgence of the American economy. As examples, a Dutch firm recently licensed an American firm to manufacture pharmaceutical rubber products in the United States; a local salvage firm has established a joint venture with a U.S. towing firm to engage in salvage work in American waters; and Philips has licensed Ford to develop the Stirling external combustion engine for larger vehicles. Other firms are known to be interested in the atomic energy field, harbor construction, and production of manufactured products.

Liberian Tempo Is Quickening As Confidence Rises

Liberian economic activity was slower than usual in 1972 but the tempo has begun to quicken in recent months. The U.S. Embassy in Monrovia reports that businessmen may have begun to grow more accustomed to the new style of the Tolbert administration and their expectations may have fallen more in line with the realities of the Liberian economy's near-term potential.

An atmosphere of uncertainty and disappointment marked the Liberian scene in the first half of 1972. A combination of relatively low iron and rubber prices; the "no go now" decision by a group of Japanese investors on the $500-600 million Wologisi iron mining project; the phasing down of oil exploration activities; the difficulties experienced by major local suppliers in collecting Government of Liberia debts; and uncertainty about the implications of economic policy pronouncements—particularly on concession agreement reviews and Liberianization — brought about a diminution of business confidence and an apparent general slackening of commercial activity.

Situation was aggravated

This situation was aggravated by the institution of price controls and a shortage of cash, especially up-country. The reduction in liquidity was partially due to low rubber prices and, perhaps, to the Government policy of maintaining sizable time deposit accounts. Many businesses reported lower orders and reduced their inventories.

Some up-country branch operations were closed and a number of small Lebanese traders reportedly left the country.

The value of imports through August 1972 was actually up 8.2 percent over the first 8 months of 1971. Much of this increase, however, is due to higher import values stemming from recent currency realignments and increases in prices and shipping costs.

Liberia continues to enjoy a stable political and economic climate. The Liberian Government has recently agreed to the presence in Monrovia of a Soviet Embassy and has exchanged diplomatic recognition with two Eastern European countries. These moves, however, are regarded more as attempts to broaden Liberia's trade and aid horizons and enhance Liberian Government stature as a spokesman for Africa on world affairs than as indicators of change in political philosophy.

Budget is in good shape

Budgetary receipts and expenditures for 1972 were originally estimated at $71.6 million (including $4.5 million of external source funds) and somewhat below the 1971 level. This figure was, however, revised to $75.1 million in June. With collections reportedly running ahead of projections at present, it appears unlikely that the Government will have to tap external funds to finance 1972 budgetary expenditures.

Liberia continues to rely heavily on foreign assistance for economic development. The United States has traditionally been the largest contributor.

Two related areas, rural development and the Liberian highway system, will attract the greatest foreign donor attention over the next few years. Commitments by international donors for various aspects of a $38 million highway program have already been made and integrated rural development studies are under way.

In response to Government of Liberia-established priorities, U.S. AID will direct the bulk of its resources into four main areas: agricultural development; public administration; public health; and rural roads. In addition, AID is considering financing improvements of the Liberian telecommunications system and expansion of the Monrovia waterworks and distribution system.

The World Bank will play an increasingly important role in Liberia over the next few years. The Bank already has projects in agriculture and education totaling $10.8 million in motion and will back programs in road maintenance and construction and possibly electric power.

Iron ore is the foundation of the Liberian monetized economy and gives it a solid basis for the long run. Export earnings from iron ore in 1971 were $160.6 million (71.7 percent of the total) on 20.9 million metric tons shipped (24.6 million produced).

Of the four iron-mining concessions currently operating, three have recently expanded or upgraded production. The fourth, Republic Steel's Liberia Mining Co. (LMC), is nearing the end of its reserves at Bomi Hills. Although LMC may eventually be permitted to exploit a new deposit at Bie Mountain, it is extremely doubtful that production will begin there before the Bomi Hills operation is terminated. A break between the end of operations at Bomi Hills and the onset of Bie Mountain will have major—and negative—short-term export earning, domestic employment, and revenue consequences.

A healthy iron ore picture is important to the United States as well as Liberia. American firms play a major role in the Liberian mining industry. In addition to Republic's interest in LMC, Bethlehem Steel has a 25 percent equity in LAMCO, the largest mine, and a U.S.-directed firm, Mine Management Associates, operates the majority of Liberian-owned National Iron Ore mine at Mano River. LAMCO and Bong operate pelletizing plants.

American manufacturers are major suppliers of mining and support equipment to these concessions which will continue to offer a market for expansion and replacement parts. American suppliers should also monitor closely Bie Mountain and Wologisi developments for new sales possibilities.

The Liberian economy is especially sensitive to fluctuations in world market prices for rubber, both because the industry is a major employer and provider of liquidity "up-country" and because of the commodity's historic importance to the country's economic well-being. The concessions, with their economies of scale, have continued to increase their production, primarily by replacing existing trees with high yielding clones. However, in the face of the low prices generally prevailing during 1971 and early 1972, a number of indigenous producers have not been able to cope and have discontinued production.

Bigger U.S. advantage

The United States has traditionally been Liberia's biggest customer and principal supplier. American products are well-known in the Liberian marketplace and enjoy a built-in preference within reasonable price differentials. Recent currency realignments have added to this advantage.

Liberia offers the American businessman additional advantages: an Open Door foreign investment policy; the free repatriation of capital and profits; similar tool and industrial standards; a currency denominated in U.S. dollars; the use of English as the official language; liberal laws of incorporation; and a free port.

These considerations, plus the political stability and commitment to free enterprise that have become Liberia's hallmarks, and the country's excellent international air transportation facilities, make Liberia an attractive base for West African regional headquarters.

Gradual Irish Recovery Continues Despite Inflation And Unemployment

The Irish economy is continuing its gradual recovery from the slump of 1969-70, despite serious unemployment and inflation.

The U.S. Embassy in Dublin estimates that real GNP may rise 5 percent in 1973, the first year of Irish membership in the European Communities, after a gain of some 3 to 4 percent last year. The situation in Northern Ireland injects an unknown into this calculation, as its improvement or deterioration can affect tourism, trade and investment in the Republic significantly.

Improvement in the economy was manifested in buoyant consumer demand during the first quarter of 1972 with some leveling off in the second quarter, rapidly rising agricultural export prices, expanding exports of both agricultural and industrial products, and revived investment in plant and machinery coupled with increased imports of producers' capital goods and raw and semi-finished materials.

Irish-U.K. tension eases

The improvement reflects an easing of tension in Irish-United Kingdom relations, which has helped to maintain Ireland's exports to its largest market despite declining tourism and investment from the United Kingdom.

Inflation has been a most serious problem in Ireland for the last few years, and is continuing at a 9 percent annual rate.

A major factor causing inflation recently has been the 14 percent increase in food prices induced by rapidly rising export prices for beef and dairy products. These price gains have in fact benefited Ireland's terms of trade. Import prices do not appear to have contributed significantly to inflation in 1972.

The other major impetus has been the wage increases provided for under the two labor-management National Pay Agreements which sent hourly earnings up by 16 percent in 1970 and 1971, compared with a 9.5 percent average rise during 1966-69. The agreements have averted the debilitating labor unrest of previous years, but at a heavy price. The second National Pay Agreement concluded in July will probably result in annual wage increases averaging at least 12 percent and probably more when cost of living escalators are factored in. Unit wage costs are rising by 9.4 percent, higher than in most other OECD countries.

Little room for maneuver

Finance Minister George Colley told an EC Finance Minister's Meeting in Luxembourg Oct. 30 that while Ireland shared the EC concern over inflation, restrictions on the growth of the money supply and government expenditures could impede Irish efforts to cope with unemployment and stimulate economic growth. He pointed out that Ireland had little room for maneuver in budgeting because the Irish Government capital expenditures represent an important proportion of total investment (about half) and social welfare payments come under the budget. In addition, Government and State-sponsored enterprises are major employers in Ireland.

Other observers have noted that the Irish Government can do little about the wage price situation given the militancy of labor unions against wage controls and lack of strong consumer pressure against price rises. A concerted campaign against price inflation now being mounted by the opposition-leaning *Irish Independent* newspaper may help to increase consumer awareness, however, and the Irish Industrial Development Authority has joined with the Central Bank and the Economic and Social Research Institute in urging restraint in wage increases so rapid as to jeopardize foreign investment in Ireland.

Unemployment is Ireland's second major economic problem. The best indicator of overall unemployment, the percent unemployed among insured persons, dropped from 8.9 percent in January to 7.8 percent in August, mainly for seasonal reasons. Labor intensive industries such as construction, textiles, clothing, footwear, food, drink, and tobacco are the most severe problem areas, but even most of those industries scoring positive output growth record low or negative rates of change in employment.

The visible trade deficit continues to decline, amounting to $434 million for the 12 months ending August 1972 compared with $576 million for the same period last year. Imports rose from $1,841 million to $1,877 million, while exports climbed markedly from $1,265 million to $1,442 million.

Trend has continued

The trend has continued and if sustained should help to offset the anticipated fall in tourist revenues this year. The improvement is of course caused not only by good export performance and improved economic growth in Ireland's top customers, the United Kingdom and the United States, but also by higher export prices, the floating of the pound, lower raw material imports as a result of the sluggish performance of the manufacturing sector early in the period, and the lack of aircraft purchases which inflated the import figures by $50 million last year.

Imports are likely to pick up again as the Irish economy improves and tariffs with the EC come down, but exports should con-

tinue to expand as well, with the improvement in the British economy and the enlargement of the duty free market resulting from EC entry.

Prospects for 1973

The Economic and Social Research Institute believes that prospects for economic expansion in Ireland in 1973 are good. The economy could grow by 5 percent in real terms, provided the Irish Government continues its expansionary policies, including deficit budgeting and large public capital expenditures.

EC membership will begin to affect the economy, providing further stimulus and funds to agriculture and some help eventually in regional development, and improving access to a much broader market but presenting tougher competition to much of Irish industry.

The predicted expansion of the economy will unfortunately not be great enough to have a significant effect on unemployment. Although externally influenced food prices are not expected to rise as rapidly in 1973 as they did in 1972, the price spiral will not moderate unless wage increases can be reduced through some modification of the National Pay Agreement system.

The recovery and improving prospects of the Irish economy have favorable implications for American business although prolonged inflation in wage costs could eventually eliminate Ireland's attractiveness as a location for U.S. investment.

Imports of capital goods, raw and semi-finished materials, and consumer products are expected to rise sharply in 1973 as the economy begins to approach capacity and incomes continue to rise. In addition, as Irish tariffs phase into the EC Common External Tariff (CXT), the high Irish barriers to finished consumer goods will drop significantly in most cases while many raw materials will continue to enter Ireland duty free. Duties which are now at or near zero-level on capital and semi-finished goods will rise gradually to about 7.5 percent during the five-year transition period, so markets in these products should be built now.

TECHNICON LTD. IN DUBLIN—*Irish workers make instruments for automatic chemical analysis in this associate of Technicon Instruments Corp., New York.*

Over the past year, the Irish Government and State-sponsored enterprises have issued a number of significant tenders. The Electricity Supply Board is making major additions to the Tarbert Thermal Electric Generating Station, financed by two World Bank loans totaling $35 million, and has issued 15 tenders since November 1971. The Department of Posts and Telegraphs is revamping and expanding the Irish telephone service at an estimated cost of $130 million and has issued 10 tenders in the past 12 months. The Department of Education is constructing and equipping 57 new schools, colleges, and adult education centers, under a $13 million World Bank Loan; 3 tenders have been issued.

American and other foreign firms continue to find Ireland an attractive area for investment. A recent Japanese study concluded that on balance Ireland was a better place for investment than either Holland or Belgium. Total U.S. industrial investment is already past the $200 million book value mark and appears likely to double over the next year or so. Such firms as Howmedica, Merck, Apco, and Beckman Instruments have opened plants recently or are considering investing there.

The major incentive

The major incentive is the enlargement of the duty free market that products made in Ireland will have access to when Ireland enters the European Community. It has been estimated that the phasing out of the CXT vis-a-vis Irish exports moving into the Community could result in an increase in profitability on these products of from 110 to 150 percent.

The EC has agreed to permit Ireland to continue its incentive grants and export profit tax exemption schemes, or replace them with incentives equally as attractive. In addition, as a less developed EC region, Ireland expects to benefit from the EC Regional Development Fund which the October Summit Meeting agreed to set up by the end of next year.

One of the most significant attractions to U.S. firms is the relatively low level of Irish wage

scales. In September 1971 when U.S. manufacturing workers were averaging $3.60 per hour, Irish workers were earning about $1.30. Workers in Italy and France were earning slightly less than that, while those in Germany earned over $2.00 and in Belgium and Holland earned about $1.70 per hour.

Opinions as to Irish productivity relative to U.S. standards vary, but a number of American employers state that their Irish employees are at least as trainable and productive as their counterparts in the United States.

The continuing inflation in Irish unit wage costs, therefore, remains a serious and immediate threat to Ireland's competitiveness with its European neighbors.

Spain Enters 1973 At Fast Pace; Eximbank Loans Will Buoy U.S. Sales

The Spanish economy is expansive and dynamic as 1973 begins.

Industrial production is growing at a healthy 16 percent rate and both exports and tourism at 22 percent; international reserves are pushing $5 billion. The GNP growth rate in 1972, the U.S. Embassy in Madrid goes on, was around 7 percent, one of the highest in Europe, with a year-end per capita GNP in the $1,200 range.

Only cloud is inflation

The only cloud on the economic horizon is the rate of inflation, which is also one of the highest in Europe, running at a current annual pace of about 10 percent. While the Government has announced some measures aimed at countering inflation, policy statements seem to indicate that GNP growth, which depends to a large extent on expansionary policies of the Government, carries a higher priority.

The budget for 1973 shows no sign of countering the inflation with a reduced rate of growth in expenditures. This year may see a tightening of credit and public expenditures though as the gap in inflationary rates with the rest of Europe becomes more telling.

Spain continues to be on the outside of the EEC-EFTA trading bloc and looking longingly in. The problem has become more acute with the expansion to nine of the EEC and still no agreement with the Community either to adjust the existing preferential agreement or to expand it into something else. Spain hopes nonetheless that the new "global" Mediterranean policy of the EEC will afford the possibility of a better arrangement.

During the first eight months of 1972 Spain imported some $671 million of merchandise from the United States, a 29 percent increase over the same period in 1971. U.S. sales to Spain approached $1 billion for the year as a whole.

It should be noted, however, that the U.S. market share of total Spanish imports for this first eight-month period of 1972 was 15.5 percent; the market share in the like period of 1971 was 16.1 percent. The U.S. market share for the past eight years averages out at 16.9 percent. Therefore, while the United States has an undeniably big market in Spain and its recent growth rate is healthy, the degree to which it is sharing in the growth of the Spanish market with other foreign suppliers is diminishing. The 29 percent increase in Spanish imports from the United States does not compare favorably with the overall increase of 32 percent (dollar terms) in Spanish imports.

The U.S. increase was probably due more than anything else to the general resurgence in the Spanish economy which resulted in a high rate of growth in imports from all markets. The United States did not benefit as much as other foreign suppliers from this expanded import demand.

In a recent speech Minister of Commerce Enrique Fontana Codina outlined the import policy for industrial products that the Government of Spain would be following in the future. One of the key points was that it is the intention of the Government to reduce the number of commodities which are subject to import controls and that the so-called bilateral regime would disappear. This measure aimed at liberalizing imports, if implemented, should eventually benefit U.S. exporters to this market.

Flurry of activity

In a remarkable flurry of activity during January-August 1972 the Export-Import Bank authorized loans to Spain in the amount of $423 million. Of this amount $326 million was authorized for three loans to finance nuclear power plants. Some $85 million was authorized in loans to finance the purchase of aircraft for Iberia Airlines. Another $12 million went to loans for a conventional power plant and earthmoving equipment.

The total amount of disbursed and outstanding direct loans made by the Export-Import Bank to customers in Spain now stands at $298 million. The total of undisbursed balances of loans authorized amounts to $518 million, which includes the $423 million mentioned above.

Some idea of the magnitude of the Eximbank's activity in 1972 may be gathered from a comparison with 1971's loan authorizations when there were only two loans authorized with a total value of $30 million.

A further idea of the impact that this loan activity will have on U.S.-Spanish trade may be gained from a realization that the Eximbank

loan authorizations cover only a part of the total cost of the merchandise and equipment being financed. In the case of the $423 million of loan authorizations made in 1972 this means that the value of the equipment that will eventually be exported from the United States as a result of these loans will be $716 million. Over the same eight-month period the total U.S. exports to Spain were only $671 million, none of which reflects the business that will be stimulated by these loans.

While there is no absolute guarantee that the full amount of the loan authorizations will be disbursed and the related equipment they financed shipped, in all likelihood the vast majority of it will. When it is, the trade statistics will reflect the enormous effect of the Eximbank activity in Spain during 1972.

Investment of $300 million

At Tarragona, some 35 miles from Barcelona on the Mediterranean coast, a refinery and petrochemical complex will be built, which will represent an eventual total investment of an estimated $300 million. The Spanish Government holding company, National Institute of Industry, will hold 60 percent of the stock of the new firm formed to build and operate the refinery. This new firm will be called the Empresa Nacional de Petróleo de Tarragona, S.A. (ENTASA). The balance of the stock, or 40 percent, was awarded in a bidding procedure to a private Spanish company, Union Explosivos Río Tinto, S.A. It is understood that the U.S. firm Caltex will eventually have an equity share in the newly formed ENTASA.

Being of the magnitude that it is, this project will afford good sales opportunities for foreign suppliers. In this connection, first requests for equipment proposals are expected to be issued this month, and those on civil works are anticipated in the spring.

The Government of Spain has limited foreign procurement to 20 percent of the equipment cost of the refinery. This will have the effect of reducing the total import component to a $20-$30 million level.

The major items that will be open to import are large reactors and compressors, some high alloy piping and heat exchangers, and large pumps and high pressure fittings.

It is understood that procurement will be made strictly on the basis of best price for the equipment needed. European suppliers are expected to offer considerable competition in the bidding process.

Value-Added Tax Is Instituted In Italy

Italy has instituted, effective Jan. 1, a value-added tax (Imposta Valore Aggiunto: IVA) replacing the cascade-type turnover tax. Italy thus becomes the last of the original six EEC countries to adopt this type of tax, which is a requirement for membership in the Common Market. It is applicable to both domestic transactions and imported goods. The basic rate of this new tax is twelve percent of the price paid by the end-user. A reduced rate of six percent applies to certain agricultural products, fish and food items, hides, books, soaps and detergents, gas and electricity for household use, pharmaceuticals, gravestones, scientific instruments intended only for research, fertilizers, products to protect plant life, feed supplements and feed additives.

An increased rate of eighteen percent applies to "luxury" products such as jewelry, fur apparel, paintings and other works of art, antiques, coin collections, playing cards, special kinds of leather goods, certain textiles (including handmade rugs), perfumes, aircraft below 600HP, passenger cars with cylinder capacity of more than 2,000 cubic centimeters, motorcycles with cylinder capacity of more than 500 cubic centimeters, manufactured tobacco, smoked sturgeon, smoked salmon, caviar, candy, and sparkling wines obtained through natural fermentation in the bottle.

The new law also provides temporarily reduced rates for certain essential foods and textiles. For example, rates of one percent and three percent (instead of six percent) apply, respectively, between 1973 and 1976 to food items presently exempt from the old turnover tax such as bread and milk. Reduced rates of six percent (instead of twelve percent) and nine percent (instead of eighteen percent) apply during 1973 and 1974 to certain fabrics and other textile products specified in Law 757 of August 12, 1957 (a variety of yarns and fabrics obtained from natural, synthetic and artificial fibers).

The value-added tax (IVA) is expected to raise the general price in Italy by at least two percent this year. For further details contact: Alan O. Maurer, Country Specialist for Italy, Bureau of International Commerce, Washington, D.C. 20230, (202—967-4974).

Some Import Restrictions Are Eased By Philippines

The Philippine Central Bank has announced that import restrictions on meats, vegetables, dairy products, cereals, glassware, pottery, kitchen appliances and tools, and sporting equipment in nonessential (NEC) and unclassified (UC) categories would be partially relaxed. According to the Central Bank's statement, the items decontrolled may be brought into the country by firms which have imported similar items in the past and which do not exceed 25 percent of their 1968 level of imports. Application for letters of credit to import these items are still subject to prior Central Bank approval.

International Business Reports

Japan and East Asia: The New International Order. By Donald C. Hellman. 243pp. $8 hardback, $2.95 paperback.

What factors enhance or inhibit Japan's ability to play a constructive role in regional politics? Can it resist the pressures to become politically and militarily involved in Asian crises that threaten its powerful economic interests? What impact would more forceful Japanese policies be likely to have on international politics in Asia? This book attempts to answer questions such as these.

The author first places the postwar rise of Japan in its historical and regional setting, then notes the factors that have led to multipolarity, describes the structure of the East Asian system, and relates Asia's politics and economics to the global system. He outlines central themes of postwar Japanese foreign policy and describes constraints imposed on it by domestic politics.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Development Today: A New Look at U.S. Relations With the Poor Countries. Edited by Robert E. Hunter and John E. Rielly. 286pp. $3.50.

Based on papers originally presented at the Overseas Development Council, this book is a collection of essays on the place the poor countries will occupy in U.S. foreign policy for the balance of the decade.

The book begins with an analysis of U.S. foreign policy and the developing countries from a "traditional" standpoint—where the poor countries fit on the U.S. agenda, and the new imperatives for action. Following chapters review critical analyses made during the last few years about the possibilities open for U.S. policy—from the massive research efforts undertaken in many countries to a specific discussion of the special problems of U.S.-Latin American relations.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Soybeans and Their Products: Markets, Models, and Policy. Published by the University of Minnesota Press. 284pp. $10.

This is the report of a study designed to identify and measure the forces, interrelationships, and processes which shape the behavior of the total soybean market. The research focused on the years from 1946-67, a period when the soybean economy developed from its small beginnings to its present magnitude. Soybeans are now the leading oilseed in world trade.

Write: U. of Minnesota Press, Minneapolis, Minnesota 55414.

Personnel Practices of American Companies in Europe. By Herbert J. Chruden and Arthur W. Sherman, Jr. Published by the American Management Association. 148pp. $14.

Although U.S. companies have been quite successful in the European marketplace, write the authors, the same has not always been true of their relations with local personnel. Moreover, an important cause of poor relations has been and continues to be errors in certain personnel policies and practices. This book aims to increase understanding of personnel problems that American companies face in European operations. It is based on 64 interviews with managers of U.S. subsidiaries in Europe.

Write: American Management Association, 135 W. 50th St., New York, N.Y. 10020.

Calendar For World Traders

Jan. 9—Chicago—Automotive Exporters Club of Chicago, Builders Bldg.

Jan. 11 — Chicago — International Trade Club of Chicago, Sheraton-Chicago.

Jan. 11—Memphis—Mid-South Exporters' Roundtable, Embers Restaurant.

Jan. 11 — New York — Overseas Automotive Club meeting, Summit Hotel, noon.

Jan. 16 — Boston — In-office workshop on export marketing and promotion, 9:30 a.m., Commerce Field Office.

Jan. 16 — Houston — Workshop on the Southwest's stake in East-West trade, 9 a.m., World Trade Club, World Trade Center.

Jan. 16 — Memphis — Memphis World Trade Club meeting, Southwestern U. cafeteria.

Jan. 17—Chicago—Midwest Credit Management Assn. meeting, Bismarck Hotel.

Jan. 17—Ridgefield, Conn.—Open Connecticut Regional Export Expansion Committee dinner meeting at Red Lion Inn. Speaker: John Connor, Jr., Deputy Director, Bureau of East-West Trade.

Jan. 18-19 — New York — Conference on the impact of changing economic and monetary policies on international trade, Waldorf-Astoria. Sponsor: The Conference Board.

Jan. 23 — Boston — In-office workshop on export licensing and controls, Commerce Field Office, 9:30 a.m.

Jan. 25—Cleveland—Greater Cleveland Growth Assn. annual meeting, Sheraton Cleveland Hotel. Sponsor: Cleveland World Trade Assn.

Jan. 25—Jonesboro, Ark.—Northeast Arkansas Export Opportunities Conference, Reng Center, Arkansas State U. Sponsors: REEC, Jonesboro Chamber of Commerce, Memphis Field Office.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

U.S. Promotions Overseas

Industrial Process Control-Analytical Instrumentation. Sydney Trade Center. March 5-9. Prospects for sale of U.S. process control equipment and related instrumentation are especially bright in Australia. Demand continues to be spurred by strong growth in the mineral processing, chemicals, electrical power and natural gas industries. Call J. Klingelhut, 202-967-5751.

Plastic Machinery and Instrumentation. Mexico City Trade Center. March 5-9. Mexico's growing plastics industry is a prime market for U.S. machinery. Imports of plastic production equipment in 1971 amounted to approximately $19.1 million, about 90 percent of total consumption for that year. Of this total, the U.S. captured 48.3 percent of the market. As for 1973, imports are presently forecast at $24 million with the U.S. share set at $14 million, about 56.9 percent of the market. Contact Fred Tower, 202-967-2963.

Metal Parts Production Equipment. U.S. Trade Center, Stockholm. March 5-9. Metalworking is Sweden's largest industry. In 1969, its output exceeded $6 billion, constituting more than one third of all industrial production. Call C. E. Walls, 202-967-4256.

Industrialized Building Exhibition. Tokyo Trade Center. March 5-10. This exhibition is planned to capitalize on the Japanese Construction Ministry's current five-year home construction plan which calls for the construction of 9.5 million houses by 1976. Call Maurice A. Shea, 202-967-4511.

Pollution Control Equipment and Services Trade Mission. Singapore, Thailand, Taiwan. March 11-24. Emphasis is on manufacture, engineering, and technical consulting pertaining to systems in air, water, solid waste and sewage disposal. Call Larry Cozart, 202-967-3905.

Data Communications Equipment Exhibition. Paris Trade Center. March 12-16. This exhibition will feature data transmission and storage computers, terminals, teleprinters, teletypewriters, message switching equipment, data multiplexing equipment, test and measurement instrumentation and sub-assemblies. The French market for data communication equipment is expanding at an annual rate of 50 percent. The United States now is the largest supplier. Call John Wolf, 202-967-4941.

Apparel Manufacturing Equipment. Milan Trade Center. March 12-16. A steadily expanding market, combined with an improving rate of exchange between the dollar and lira, provides American firms with a unique opportunity for sales of high technology, mass production garment-making equipment. With equipment purchases averaging $40 million yearly and an expanding economy, prospects for sales in the Italian market are bright. Call Don Johnson, 202-967-2795.

Offshore Drilling Production and Service Equipment Trade Mission. Scotland, Norway and the Netherlands. March 15-28. Oil discoveries in the North Sea have created excellent sales potential for all types of oil drilling equipment and related items. By mid-1973, 50 rigs will be operating, each costing close to $25 million and requiring $25,000 to $50,000 a day to maintain and service. Contact Charles Johnson, 202-967-2798.

Japan Graphic Arts Show. Tokyo. March 16-19. Japan is a significant importer of printing, bookbinding and graphic arts equipment, purchasing in 1971 $45 million from overseas sources. Some $11 million came from the U.S. Market research indicates that 37 separate items in five principal categories have high sales potential in Japan. Call Robert Levine, 202-967-4705.

Surgical and Medical Equipment Trade Mission. Portugal and Spain. March 17-28. Sales prospects for sophisticated electronic monitoring equipment, advanced electrocardiographs, ecoencephalographs, sophisticated x-ray units, cobalt source radiotherapy, cryosurgical and other equipment involving the most recent advancement in American technology are excellent in Lisbon, Madrid and Barcelona. Construction plans for two new hospitals in Portugal and considerable expansion of the Spanish Social Security System Hospital offer special opportunities. Call Gertrude Oppolzer, 202-967-3184.

Metallurgical Equipment and Instrumentation Trade Mission. Mexico. April 1-14. This mission is designed to take advantage of specific project opportunities in the steel mill expansion and mining programs in Mexico City, Queretaro and Monterrey, as well as other attractive business possibilities. Call Bruce Malkin, 202-967-4927.

Railway Equipment Trade Mission. India. April 2-14. This Department of Commerce-sponsored mission is designed to tie in with the Indian Eleventh Railway Project. A World Bank loan of $75 million (IDA Credit) has been authorized for purchase of railway equipment through worldwide tenders. The $75 million covers only part of the total foreign exchange cost of $170 million. Cutoff date for applications is Feb. 15. Mission will be limited to 12 U.S. firms. For details call Herbert Socks, 202-967-3904.

Hotel and Restaurant Equipment Exhibition. Paris Trade Center. April 9-13. The market for this type of equipment in France is exceptionally strong. The expansion and modernization of hotels and catering establishments, including the provision of large volume and quick-service feeding facilities, continues to provide special investment incentives in this field. Imports still account for about one half of total sales. Call J. Gwaltney, 202-967-2888.

Electronics Test and Measuring Instruments. London Trade Center. April 9-13. Inflationary pressures in the United Kingdom have made cost effectiveness the principal consideration in the purchase of electrical-electronics measuring and test instruments. Call L. W. Swift, Jr., 202-967-4461.

Construction Equipment, Building Products, Logging, Forestry, Sawmill and Woodprocessing Equipment. Singapore. April 9-14. Call LoRee P. Silloway, 202-967-4858. Concomitantly, **Logging, Forestry, Sawmill and Woodprocessing Equipment Trade Mission,** beginning April 9-14 in Singapore (exhibition participation optional); moving to Indonesia, April 15-21; and Philippines, April 22-25. Sall Larry Cozart, 202-967-3905.

Materials Handling Equipment. U.S. Trade Center, Stockholm. April 9-14. The Nordic markets for these products total an estimated $450 million of which imports supply one third. New programs are now planned to modernize and rationalize production, internal transportation packaging and storage operations. Call your nearest Department of Commerce Field Office.

Airport Development Trade Mission. Saudi Arabia, United Arab Emirates (Persian Gulf states) and Kuwait. May 2-14. These countries are anxious to better their airport facilities and are backed by ample hard currency revenues. U.S. industry should have a competitive edge in marketing. Call Fred Crosley, 202-967-2232.

Agricultural, Drainage and Irrigation Equipment Trade Mission. India. May 6-18. This mission seeks to capitalize on the $36 million Indian plan for development for which free foreign exchange

Sales opportunities in 9 U.S. commercial exhibitions, 18 shows at the 10 U.S. Trade Centers, and 11 Trade Missions are being offered to present and potential U.S. exporters between now and September 1973.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Bangkok, Buenos Aires, London, Milan, Mexico City, Frankfurt, Stockholm, Sydney, Tokyo, and Paris. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Overseas Operations, BIC-218, U.S. Department of Commerce, Washington, D.C. 20230.*

Trade missions are groups of U.S. businessmen organized to travel abroad promoting the export of U.S. goods and services made by their particular industry. **Write:** *Trade Missions, BIC-252, U.S. Department of Commerce, Washington, D.C. 20230.*

has been allocated. It will visit Bombay, Hyderabad, New Delhi and Bangalore. Call Andre Williams, 202-967-4227.

Metalworking Machinery & Equipment Trade Mission. Spain and Italy. May 7-18. Improved economic conditions with rising consumer demand, substantial new government spending on public sector capitol projects and increased private investments in new industrial plants is expected to increase the need for all types of metalworking equipment. Call David Brann, 202-967-4228.

Nor-Shipping '73. Oslo. May 9-15. The fourth international shipping exhibition offers U.S. companies an excellent opportunity to promote their products to Scandinavian users of shipbuilding, marine, cargo, and port equipment. Call A. J. Beiring, 202-967-3838.

Interpack '73. Duesseldorf. May 10-16. This is the largest specialized packaging exhibition in the world. Consumption of packaging machinery in West Germany reached $74 million in 1971, up 11.6 percent over 1970. Call W. S. Gaines, 202-967-4073.

Audio Visual Marketing and Training Aids, Sydney Trade Center. May 14-18. This show and seminar is aimed at a very promising market for imported audio-visual equipment and materials estimated at $6-7 million in 1972. Call Pat O'Connor, 202-967-2715.

Analytical Instruments for Science and Industry. Tokyo Trade Center. May 14-19. Japan is a $100 million market for analytical instruments for science and industry. Consumption is expected to rise 30 percent annually over the next few years. High sales potentials exist for a broad range of instruments and equipment. Call your nearest Department of Commerce Field Office.

Minicomputers and Related Peripherals Exhibition. Milan Trade Center. May 15-19. The market for U.S. minicomputers is expanding at 30-40 percent annually, and is wide open. Sales are expected to reach $10 million in 1975. Italian EDP users are moving from large systems to smaller, specialized ones, and U.S. manufacturers should move now to establish themselves in this growing market. Equipment to be exhibited includes minicomputers and all EDP peripherals designed for use with minicomputers. Contact Don Johnson, 202-967-2795.

Petroleum-Petrochemical Equipment. Hungary. May 18-28. The remarkable expansion of the Hungarian oil industry has stimulated a substantial growth in imports and a recent market research study projects that the Hungarian petroleum industry will purchase during 1973-75 an estimated $110 million worth of machinery, equipment and instrumentation for the exploration, drilling, production, refining, transportation and storage of oil and gas. The Budapest International Fair will concentrate on these products, and in addition to Hungarians is expected to attract buyers and end-users from other major Eastern European countries. Call A. Hertzberg, 202-967-2801.

Microwave Equipment and Components. Frankfurt Trade Center. May 21-25. The German market for microwave products, currently at $65 million, is projected to expand sharply in the next decade, spurred by the development of radio relay, satellite, and waveguide systems, air traffic-control networks, and by rising outlays for defense and space research. U.S. made or designed equipment and components accounts for a leading share of the market with the sales outlook especially promising for items suitable for high frequency applications. Call Bill Gaines, 202-967-4073.

Pulp, Paper and Conversion Equipment. Mexico City Trade Center. May 21-25. Rapidly expanding pulp and paper industries form attractive sales targets in a nearby market. Call Jim Blow, 202-967-4311.

Industrial Use of Natural Gas Trade Mission. Japan & Australia. May 22-June 8. Steady increase in the availability of natural gas supplies and progressively heavy dependence on this resource by industry creates an especially good market for U.S. manufacturers of industrial equipment and systems associated with natural gas. The mission will be limited to 8 to 10 manufacturers and will visit Tokyo, Osaka, Sydney and Melbourne. Call Herbert Socks, 202-967-3904.

Design Engineering, Industrial Components and Subassemblies. Paris. June 2-8. The automotive, aerospace, construction, fabricated metal machinery and instruments industries will constitute the key buying audience for this show. The total French market for all types of U.S. design engineering parts and components is estimated at over $165 million. Call R. B. Wallace, 202-967-4508.

Data Transmission Equipment and Computer Terminals. Tokyo Trade Center. June 11-16. The anticipated opening of Nippon Telephone and Telegraph's circuits to data transmission this month is expected to stimulate new demands in Japan for data transmission equipment (and computer terminals). Sales of data transmission equipment in Japan in 1971 were estimated at $390 million, including imports from the U.S. of nearly $16 million. Call Ray Eiselt, 202-967-3846.

Materials Test and Quality Control Equipment. Milan Trade Center. June 12-16. Featured will be electrical, electronic and sophisticated mechanical equipment for testing and analyzing physical properties of industrial materials and for environment simulation testing. Italy is a good market for American-made testing equipment. The show will be promoted to a wide audience of buyers in Italian industry. Contact Robert Wallace, 202-967-4508.

Modern Merchandising Equipment. Paris Trade Center. June 18-22. France has developed one of the most advanced retailing systems in Europe, second only to West Germany in the proliferation of large self-service stores. Given the continuing construction, development, and success of American-style supermarkets, shopping centers, and smaller stores, the outlook for U.S. manufacturers of modern merchandising equipment is most promising. Call Samuel Spaulding, 202-967-3968.

Combined EDP and Business Equipment, and Industrial, Scientific, Test and Measuring Instruments Exhibition. Hong Kong. June 18-23. Exports of EDP and other advanced office equipment have risen from $581 million in 1962 to more than $2 billion in 1970. U.S. exports to Hong Kong of instruments in 1971 totaled $3.6 million. For EDP and Business Equipment participation call Tom Padgett, 202-967-4727. For Industrial, Scientific, Test and Measuring Instruments participation call Irvin Lloyd, 202-967-3783.

Achema '73. Frankfurt. June 20-27. The triennial Chemical Engineering Exhibition and Congress is one of the world's most important events in this field. The U.S. Exhibition will feature industrial process instruments, control, regulator, and solenoid valves, related electronic computers, peripheral equipment, parts and accessories. Call Henry J. Weseloh, 202-967-4421.

Air Conditioning and Refrigeration Equipment Trade Mission. Ecuador, Peru. June. Call 202-967-3904.

Data Transmission Equipment and Input Output Devices. Tokyo Trade Center. June 25-30. The opening of Nippon Telephone and Telegraph's circuits to data transmission on Nov. 12 is expected to stimulate new demands in Japan for data transmission equipment (and computer terminals). Sales of data transmission equipment in Japan in 1971 were estimated at $390 million, including imports from the U.S. of nearly $16 million. Call Ray Eiselt, 202-967-5622.

Algiers International Trade Fair. September. The United States will participate in this major trade event, an unparalleled opportunity to enter a $1.5 billion import market. All product groups will be included, especially the following: infrastructure and construction; information retrieval systems; office equipment; oil and gas equipment and services; irrigation and agribusiness equipment and services; and transportation equipment. Call David Christensen, 202-967-2307.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-976, Washington, D.C. 20230, or from any Commerce Field Office.

2000, 2834—BELGIUM—License to manufacture **pharmaceutical and food products.** Also seeks to purchase pharmaceuticals, medicinal plants and tonka leaves. Firm produces and distributes pharmaceutical preparations, raw materials. Ets. Demol-Delpree, 60 Chaussee De Grammont, Lessines, Belgium. WTD. P-73016.

2032, 2834, 2879 — SWITZERLAND — Well-established manufacturer of agrochemicals and pharmaceuticals seeks licenses. Wants to produce (1) **patented pharmaceuticals** for human use acting on central nervous system and sense organs, affecting parasitic and infectious diseases and specialties for the treatment of heart disorders; (2) **patented fine chemicals** for pharmaceutical industry; (3) **dietetic food specialties** for hospitals, including baby food; (4) **plant extracts** and other natural substances for pharmaceuticals; (5) **agricultural, horticultural chemicals** mainly in fungicide, insecticide and herbicide fields. Firm employs 800, has extensive production and R & D facilities. Markets worldwide. Henry Oberle, Siegfried Chemical Works Ltd., 4800 Zofingen, Switzerland. WTD. P-73012. Further details available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230.

2300—NETHERLANDS — Major manufacturer of men's, women's, and children's **underwear, sportswear and casual wear** desires acquisition. Employs 950 people in three Dutch plants and one in Belgium. Reports moderately profitable operations with 1972 turnover of about $10 million. Further information available from Jean-Michel Gal, Trade Developments, European-American Banking Corp., 10 Hanover Square, New York, N.Y. 10005, (212-632-8355). Specify TP-926. P-73018.

2661 — GERMANY — Licensing agreements sought for the manufacture of **insulating underlay and ribbed cardboard for heat and sound insulation** in buildings. Herr Gausmann, M. H. Schierling, 43 Essen, Schwarze Str. 13, Germany. WTD. P-73019.

2665—UNITED KINGDOM — Manufacturer of paper tubes seeks machinery for producing **spiral or convolute paper or board packaging** and licenses to cover manufacture of such packaging. R. H. Maudsley, managing director, Tube Winding (Paper) Co. Ltd., 46 Bideford Ave., Perivale, Greenford, Middlesex, England. WTD. P-73015.

2842—UNITED KINGDOM—License or joint venture to manufacture **new products and processes in the industrial wax field.** Presently produces casting waxes, mold release agents and a wide range of waxes for industry. Established 1875, employs 40. J. W. K. Oates, managing director, Wilkins Campbell & Co. Ltd., Britannia Works, West Drayton, Middlesex, England. WTD. P-73022. Product brochures available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230.

3069 — SWITZERLAND — Manufacturing rights for **neoprene sheet skin-diving (scuba) and wet suits.** Firm is major sporting goods dealer, operates three retail outlets. Manufactures nylon fabric sportswear and life jackets. Neuburger Sport, Werdstrasse 4, CH-8004 Zurich. P-73008.

3079 — UNITED KINGDOM — Licenses for **hose materials, production techniques and designs to increase capability in fields of temperature, pressure extremes and corrosive fluids.** Firm presently produces industrial hose, thread sealing tape, tubes and moldings mainly in PTFE; is also a supplier of metallic hose and hose-end fittings. Interested in establishing distributor for its products in U.S. Affiliate of major company employing over 1,400. Roy Freeland, Alenco Hilyn Ltd., Alenco House, The Grove, Slough, Buckinghamshire, England. P-73006. Further details available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230.

3272 — NEW ZEALAND — Affiliate of large industrial and construction group seeks licenses and technical assistance for manufacture of **pre-stressed and pre-cast concrete structural and architectural products.** Products currently manufactured for use by government, local bodies, harbor authorities. Stanley A. Carwardine, general manager, Stressecrete (Auckland) Ltd., Lunn Ave., Mt. Wellington (P.O. Box 14-212 Panmure), Auckland 6. WTD. P-73007.

3532 — GREECE — Marble excavating and processing machinery manufacturer seeks joint venture to **expand present plant** from a capacity of 1,000 sq. meters finished marble tile per day to 3,000 sq. meters. Polat SA, 25 Valaoritou St., Thessaloniki. WTD. P-73003.

3540 — UNITED KINGDOM — Manufacturing rights for **machine tool accessories, measuring devices and any metal working machinery used to complement machine tools.** Presently produces threading equipment, broaching machines, cutting tools, chucks and grinding wheels. Would market in U.K. and Europe. Is subsidiary of England's largest machine tool manufacturer. Douglas Lang, managing director, Herbert Small Tools & Equipment Ltd., P.O. Box 30, Edgwick Works, Coventry CV6 5GT, England. WTD. P-73021.

3551—GERMANY—License to manufacture **ball mills for the production of artificial fertilizers.** Firm presently manufactures and markets agitator ball mills, grinding machines, pumps and other industrial machinery. Employs 18, has sound reputation. INDUTEC—Industrietechnik GmbH & Co. KG, 17 An der Waldesruh, 407 Rheydt, Germany. WTD. P-73009.

3552 — UNITED KINGDOM — Manufacturer of **industrial knitting machinery wants to sell a subsidiary.** Offer includes land, equipment, building. Total floor area of 66,000 sq. ft. Located on 10-acre site in an area which qualifies for government assistance. G. S. Cope, management services director, Stibbe-Monk Ltd., P.O. Box 81, Newark St., Leicester, England. P-73014.

3561—JAPAN—Seeks licenses and technical know-how to manufacture **primary circuit nuclear reactor pumps; magnetically driven pumps.** Honda Kiko, K.K., 17-24, Hakataeki-Minami, 3-chome, Fukuoka, Japan 812. WTD. P-73004.

3576 — FRANCE — Major **producer of scales and balances seeks merger or outright sale** to U.S. company. Owner is elderly, wants to retire. French firm is more than 100 years old, has about 200 employees. Services domestic, overseas markets. R. Kuhn, Kuhn & Fleichel. 115, Rue de la Republique, Jarville. P-73020.

3581 — ISRAEL — Manufacturing rights for **coin operated vending machines which dispense refrigerated beverages.** Also interested in vending machines that dispense both hot and cold beverages. Large manufacturing and distributing firm. Produces air conditioning units, television sets and electric heaters. Building new plant. Markets in Africa, Asia. J. Gesundheit, managing director, Electra (Israel) Ltd., 19 Petach Tikva Rd., Tel Aviv. WTD. P-73001. Additional details from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230.

3589 — JAPAN — Manufacturing rights for **industrial liquid waste treatment units.** Seeks to assemble complete units by 1975. Also interested in **reverse osmosis treatment process** for the purification of seawater and industrial waste. Honda Kiko, K.K., 17-24, Hakataeki-Minami, 3-chome, Fukuoka, Japan 812. WTD. P-73005.

3613, 3642—BELGIUM—Importer seeks to manufacture under license or import such power plant parts and accessories as **switchgears, switchboards, air-circuit**

breakers and insulators. Also, indoor and outdoor lighting equipment and fixtures, and flameproof equipment. Entreprise Electro-Equipment Europe, SPRL, Ave. Montjoie 142, 1180 Brussels. WTD. P-73017.

3694—TAIWAN—Textile producer proposes joint venture to manufacture **spark plugs and automotive magnetos.** Firm currently employs 225 and produces synthetic and blended yarn for export. Unitron Textile Corp., 162 Sin-Yi Rd., Sec. 3, Taipei. Attn: Alexander Lowe, president. WTD. P-73013.

3731—MEXICO—Licensing arrangement sought by established boat builder to produce **steel shrimp boats.** Plans call for substantial expansion of current production averaging around five boats per year. Joint venture proposals would receive consideration. Astilleros Samano, Tampico. Attn: Manuel Gonzalez Samano, president. P-73023.

7217—BELGIUM—Firm seeks U.S. label and/or know-how for **maintenance and cleaning of carpets and rugs.** Presently engaged in rug cleaning of private premises. SPRL, Dupont-Drion, 94 rue Antoine Gauthier, 1040 Brussels. WTD. P-73010.

7392—MAURITIUS — Firm seeks ties with U.S. companies interested in **joint ventures, licensing or technical assistance agreements.** Currently engaged in exporting, importing and agricultural and fishery development. J. Pierre Harel, general manager, Universal Development Corp., 5 Sir William Newton St., Port-Louis, Mauritius. P-73002.

Licensing In U.S.

For additional information on opportunities to manufacture foreign firms' products in the U.S., write the Office of International Finance and Investment, BIC-286, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-2248) referring to the appropriate file number.

UNITED KINGDOM — A medium-size firm is offering for manufacture in the U.S. under license its system for **rapid design and manufacture of a printed circuit board. File 2312**

UNITED KINGDOM—A small to medium-size firm is offering for manufacture in the U.S. under license its fringe (optical diffraction grating) **displacement encoders and metrology systems** used for ultra-precise measurements in both industry and science. It reportedly has the capability of measuring distances and angles with a precision of one part in 500,000 up to one part in four million over a distance of 27 inches (longer with reduced precision). **File 2313**

FRANCE—An established French company wishes to make a licensing arrangement with a U.S. firm to make **airborne communication equipment and meteorological equipment.** Included in the offering are airborne transceivers, air-to-air ground VHF/UHF links, ground transmitter receiver stations, test kits, guard receivers, sight recorder cameras, airborne cameras, film reader, miniradar, radar for meteorology, datascopes, and other equipment. **File 2209-R**

GERMANY—A large company is offering for manufacture in the U.S. under license its **disposable plastic laboratory articles. File 2314**

GERMANY—A large company is offering for manufacture in the U.S. under license its instruments and equipment which **determine the biochemical oxygen demand (B.O.D.) and measure the toxity of waste water.** The company is also offering its **digital printer, magnetic disc recorder and a unit which graphically plots measured value. File 2315**

NETHERLANDS—A small to medium-size firm is offering for manufacture in the U.S. under license its newly developed **electronic starter booster** for any kind of gasoline engine with electrical ignition system. **File 2316**

SWITZERLAND—A large firm is offering for manufacture in the U.S. under license its line of **advanced pneumatic and hydraulic control and regulating valves** and related equipment. These consist of various types of hand- and foot-operated valves, pneumatically actuated and solenoid valves as well as different types of check, exhaust and throttle valves. The manufacturer is also offering its hand-operated or automatic and push-button controlled **storage systems for offices, file rooms and medium storage facilities. File 2317**

SWITZERLAND—A large firm is offering for manufacture in the U.S. under license its **cable control unit, a cable coding process, a cable compound and a special type of cable. File 2318**

SWITZERLAND — A newly established Swiss firm offers a license for manufacturing in the U.S. an **anti-skid device for tires** to drive safely on snow, ice, mud or sand-covered roads. The product is an aluminum shell which is screwed onto the drive wheels to replace conventional hubcaps. A rubber ring affixed on the shell around the wheel's rim maintains seven to eleven T-shaped hooked steel bars, each mounted on two springs and hinges. The hooked bars can be put into position easily. They are spaced around the tire so that two claws always touch the road surface. The manufacturers have tested the device over seven winters under rough conditions on Swiss mountain roads. The new device has the principal advantage of permitting the use of normal tires through the year. **File 2187-R**

East Caribbean, B. Honduras Industrial Prospects Studied

The Caribbean Development Bank has released a comprehensive industrial survey on the possibilities for establishing manufacturing industries in the Associated States of Montserrat, British Honduras and less developed member countries. The survey is published in several sections. An annex containing background information on the survey area describes separately each of the territories from the standpoint of existing industries, manpower, natural resources, infrastructure, role of government, and other pertinent factors. The final report lists and analyzes existing industries. A separate prospectus has been prepared for each of the following industries: builders hardware; footwear; canning fruit and vegetables; ceramics; handtools and cutlery; bicycles; toys; electronics; garments; jewelry; sports goods; domestic electrical accessories; and leather goods. The report also identifies existing industries and new industries which may be developed for local consumption and recommends steps to attract new industry.

Potential investors may obtain portions of the report from Caribbean Development Bank, P.O. Box 408, Bridgetown, Barbados, by providing specific details regarding the nature of their interest. P-73011.

Turkish Firm Seeks Catalogs Of U.S. Tourist Products

The firm Transturk Holding A.S. is negotiating with the Government of Turkey for permission to open duty free shops at major hotels in Istanbul, at the port area in Izmir, and at three tourist complexes on the Aegean and Mediterranean coasts. The scope and details remain to be worked out. The firm desires to receive catalogs from U.S. suppliers of whiskey, cigarettes, cameras, optical equipment, toiletries and similar items. Transturk Holding A S., Transturk Han, Karakoy, Istanbul, Turkey.

Thais Approve Investments In Synthetic Fiber Industry

Thailand's Board of Investment has approved 14 applications for industrial investment promotion certificates aimed at establishing a synthetic fiber industry. The applicants will need to import machinery and equipment to begin production. Opportunity exists for American suppliers of such machinery and equipment. The synthetic fibers to be produced include polyester fiber, stretch yarn, polyester filament, and nylon filament. A list of names of the factories, indicating the planned investments, production capacity, and the type of products to be manufactured is available from the U.S. Department of Commerce, Trade Opportunities Section, BIC-267, Rm. 4813, Washington, D.C. 20230.

U.S. Firms Needed To Build, Manage Kuwait Parking Garage

The Kuwait Investment Company (KIC) has requested names of U.S. firms with design and management experience in **parking garage projects.** KIC has permission to construct a four-story, 900 car capacity garage in a downtown commercial area at a cost of approximately $3 million. Three similar garages are planned for other parts of Kuwait in the near future. U.S. firms can contact Hisham Hassanein, Chief Engineer for Projects, KIC, P.O. Box 1005, Kuwait. Telex 115.

Swaziland Seeks U.S. Firms To Help Build Water Systems

Swaziland's Department of Economic Planning in Mbabane has announced that Swaziland encourages U.S. firms to participate in the development of water systems for urban areas. A proposed Urban Water Project would provide improved water and sewage services to the country's two major towns, the industrial estate at Matsapha, and some other population centers. Total cost of this development is estimated at over five million Rand. Both the World Bank and IDA have indicated willingness to consider funding.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, BIC-267, U.S. Dpartment of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U. S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available for $5 from the U.S. Department of Commerce, BIC-266 Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDR's and request forms is available from your local Commerce Field Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Forest nurseries

08210 — GERMANY — Tree seeds for forest nursery. Ch. Geigle Nachfolger (I, D, R), Herrenberger Strasse 54, 7270 Nagold. WTD 12/72.

Canning, preserving foods

20310 — NIGERIA — Price quotations, product particulars on canned mackerel, other fish products exclusive of salmon in "jitney tins", flat oval cans, or in regular 8 and 16 oz. cans. I.H.S. Lotinga Nigeria Ltd. (I, D), 122/124 Yakubu Gowon St., P.O. Box 100, Lagos. WTD 3/71.

20331 — ICELAND — Medium priced canned fruits, all descriptions. Smjorliki HF (I, D, A), Thverholt 19-21, P.O. Box 241, Reykjavik. WTD 12/71.

20332 — ICELAND — Medium priced canned vegetables, all descriptions. Smjorliki HF (I, A, D), Thverholt 19-21, P.O. Box 241, Reykjavik. WTD 12/71.

20334 — ICELAND — Canned fruit juices, concentrates, medium priced. Smjorliki HF (I, A, D), Thverholt 19-21, P.O. Box 241, Reykjavik. WTD 12/71.

20338 — ICELAND — Jams, jellies, preserves. Smjorliki HF (I, A, D), Thverholt 19-21, P.O. Box 241, Reykjavik. WTD 12/71.

20338 — JAPAN — Preserves, canned foods new-to-market in Japan. Yamashiroya Shoji K.K. (I, D), 4 Sakae-Machi, Moji-ku, Kitakyushu. WTD in prep.

Grain mill products

20421 — GREECE — Poultry feed supplement, concentrates. Informative material, quotations requested. Direct purchase & agency. Spyros G. Spyropoulos & Co. (I, A, D), P.O. Box 21, Thessaloniki. WTD 12/72.

Food preparations

20999 — BELGIUM — Foods, prepared, perishable, sold in bulk or packaged. Direct purchase & agency. Ets. Demol-Delpree (M, I, A), 60 Chaussee de Grammont, Lessines. WTD in prep.

Broad woven fabric mills, cotton

22110 — FRANCE — Cotton broad woven fabric mills: blue denims. Bejar Fils (M, D, I), 32, Rue de Venise, 81100 Castres. WTD 5/71.

22117 — ICELAND — Bed linen fabrics, permanent press, blended cotton-synthetic fibers, white and colors. Samband of Iceland, Import Dept. (I, A, D), Sambandshus/Solvholsgotu, Reykjavik. WTD 8/72.

Knitting mills, products

22531 — ITALY — Modern teenage fashions; inscribed jerseys, T shirts. Boutique Mr. Fiz (I, D, R), Via Parini 10, 10121 Torino. WTD in prep. Will consider only exclusive direct sale or agency.

22590 — NETHERLANDS — Dress, semidress, work gloves, mittens. Direct purchase and/or representations requested. Modana B. V., Attn: D. Van Huiden (I, D), 101-103 N. Z. Voorburgwal, Amsterdam. WTD 10/72.

Textile goods

22970 — CANADA — Mohair fabric for paint rollers. J. B. & D. Co., Ltd., contact: H. C. Hildebrand (M), Unionville, Ontario. WTD in prep.

Men's, youths', boys' furnishings, work clothing

23292 — ITALY — Modern teenage wearing apparel, jeans, dungarees, sweaters, outerwear. Boutique Mr. Fiz (I, D, R), Via Parini 10, 10121 Torino. WTD 12/72. Only exclusive direct sale or agency for Italy.

Apparel, accessories

23811 — NETHERLANDS — Dress gloves, mittens, made from woven or purchased knit fabrics, including leather-and-fabric combinations. Direct purchase and/or representations requested. Modana B. V., Attn: D. Van Huiden (I, D), 101-103 N. Z. Voorburgwal, Amsterdam. WTD 10/72.

23812 — NETHERLANDS — Work gloves, mittens, made from woven or purchased knit fabrics, including leather-and-fabric combinations. Direct purchase and/or representations requested. Modana B. ,V Attn: D. Van Huiden (I, D), 101-103 N.Z. Voorburgwal, Amsterdam. WTD 10/72.

Sawmills, planing mills

24262 — JAPAN — Persimmon wood heads for golf clubs (model heads available); persimmon wood blocks for golf clubs. Mori Trading Co., Ltd., Contact: Hiroshi Nagai, Mgr. (I), 36-5 Taito 3-Chome, Taito Ku, Tokyo 110. Cable address: Grandgolfer Tokyo. WTD in prep.

Millwork, veneer, plywood, prefabricated structural wood products

24332 — BELGIUM — Building parts, sections, panels, wood, for prefabricated, ready-cut buildings, not sold as complete units, new techniques in this field. Direct purchase & agency. Durox Belgium, A.A. (M, I, A), Avenue Jean de

Bologne 22, 1020 Brussels. WTD in prep.

Household furniture

25117 — BELGIUM — Outdoor furniture, wood, painted, finished, except upholstery, novelties in that field. Direct purchase & agency. Durox Belgium S.A. (M, I, A), Avenue Jean de Bologne 22, 1020 Brussels. WTD in prep.

Office furniture

2522498 — GERMANY — Metal storage racks, sliding, motor operated, air cushion controlled, for offices, factories. Direct purchase & agency. Mauser Werke GmbH (D), 3591 Waldeck - OST, Near Kassel.

Paper mills

26216 — BELGIUM — Paper, fine, including thin paper; paper, fine writing, cotton fiber or chemical woodpulp. Agence Importation Paiers, A.I.P., SPRL, Jean Masson. (I), Avenue Des Genets 77, 6001 Marcinelle. WTD in prep.

26217 — BELGIUM — Kraft paper, unbleached and coarse, wrapping, bag, and sack, shipping sack; high quality kraft paper. Direct purchase, agency. Agence Importation Papiers, A.I.P., SPRL, Jean Masson (I), Avenue Des Genets 77, 6001 Marcinelle. WTD in prep.

Converted paper, paperboard products

26411 — BELGIUM — Paper coated for printing at other than primary mill, coated one, two sides. Agence Importation Paiers, A.I.P., SPRL, Jean Masson (I), Avenue Des Genets 77, 6001 Marcinelle. WTD in prep.

26440 — GERMANY — Wallpaper, machine, screen or handprinted; paper, velours, vinyl. Heinrich Schmitz Import, Attn: Max H. Schmitz (I), 43 Essen, Ruettenscheider Str. 46. WTD available on Essener Tapetenmanufaktur Christian Schmitz, 43 Essen, Ruettenscheider Str. 46, 12/72.

26491 — AUSTRALIA — Standard stationery supplies, wedding stationery, executive writing pads. Theodor Advokat. Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

26491 — BELGIUM — Stationery, paper, envelopes, packaged. Agence Importation Paiers, A.I.P., SPRL, Jean Masson (I), Avenue Des Genets 77, 6001 Marcinelle. WTD in prep.

Building paper, building board mills

26611 — GERMANY Insulating underlay and ribbed cardboard for heat and sound insulating in buildings. M. H. Schierling, Contact: Herr Gausmann (M, I, D), 43 Essen, Schwarze Str. 13. WTD in prep.

Books

27313 — INDIA — Scientific, technical, professional books. Universal Book Corp. (I, A, D), 546, Jer Mahal, Dhobi Talao, Post Box No. 2540, Bombay 2, Attn: S. A. Shroff. WTD in prep.

Publishing

27413 — AUSTRALIA — Picture postcards. Theodor Advokat, Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

General commercial printing

27515 — SWITZERLAND — Original posters for decorative purposes; quality prints. Zyklo Verlag AG (I,D,M), 3123 Belp. WTD in prep.

27526 — AUSTRALIA — Executive calendars. Theodor Advokat, Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

27530 — AUSTRALIA — Full range of lithographic plates including negative, positive pre-sensitized plates, wipe on and paper type. Direct purchase & agency. Prolith Pty. Ltd. (D), 93-101 Victoria St., Smithfield, New South Wales, 2164. WTD in prep.

Industrial chemicals

28121 — SWEDEN — Stabilized chlorine dioxide, C10 2. Simbaco AB (A, D), Trekantsgatan 10, S-252 54 Helsingborg. WTD in prep.

28181 — INDIA — Chlorinated xylenol's D.D. M.X. (dichloro meta xylenols) and cresol (creyslic acid). Shelat Brothers (M), 8 Luckmudoss St., Madras 600003. WTD in prep.

28199 — JAPAN — Barium carbonate, TEC grade. Tanaka Ai, Ltd., Kitakyushu Branch (I, A), c/o Chuokaikan Bldg., Uo-Machi, 1-Chome, Kokura-ku, Kitakyushu. WTD in prep. 100 tons per month at approximately c.i.f. $235 per ton.

Drugs

28340 — BELGIUM — All pharmaceutical and/or para-pharmaceutical preparations, drugs, raw materials in the pharmaceutical field. Direct purchase & agency. Ets. Demol-Delpree. (M, I, A), 60 Chaussee de Grammont, Lessines. WTD in prep.

Paints, varnishes, lacquers, enamels

28518 — JAMAICA — Automobile putty: fast drying, suitable for high humidity conditions. Literature, quotations requested. Sinclair's Garage Ltd., Attn: Mr. J. Crawford (I, R, automobile dealer), P.O. Box 400, Kingston. WTD 12/72.

Chemical products

28993 — BELGIUM — Foods, essential oils, such as citrus oils, peppermint oils, etc. Direct purchase & agency. Ets. Demol-Delpree (M, I, D), 60 Chaussee de Grammont, Lessines. WTD in prep.

Fabricated rubber products

30695 — GERMANY — Micro-cellular rubber sheets, thickness 6-16 mm; resin rubber sheets (buna), thickness 1,8-3,0 mm, big size requested, for sale in West Africa. Quote prices c.i.f. West African border. Kreuser Import-Export GmbH, & Co. KG (A, I, Exporter), 43 Brennaeckerstrasse, D-7157 Murrhardt. WTD 12/72.

Plastic products

30794 — GERMANY — Electrically conductive (anti-electrostatic) soft and rigid foams for protective wrapping, packaging of electronic components. Gottfried Reuter GmbH (I, D, M), 2844 Lemfoerde, P.O. Box 14. WTD in prep.

30796 — GERMANY — Plastic roofing materials (panels) for greenhouses made of PVC or similar plastics. Christian Metzger (A, D, I), 6 Heiligenwiesen, D-7000 Stuttgart 60. WTD 3/72. Representative of German firm plans to visit USA in June and would like to meet prospective suppliers.

30798 — CANADA — Plastic handles and caps for paint rollers. J. B. & D. Co., contact: H. C. Hilderand (M), Unionville, Ontario. WTD in prep.

Leather tanning, finishing

31111—SPAIN—Finished cattle hide, kip side leathers. Casadesport, S.A. (M), Corcega 327, Barcelona 8. WTD 12/72.

31112—SPAIN—Finished calf, whole kip leathers. Casadesport, S.A. (M), Corcega 327, Barcelona 8. WTD 12/72.

31113 — SPAIN — Finished sheep, lamb leathers. Casadesport, S.A. (M), Corcega 327, Barcelona 8. WTD 12/72.

31114—SPAIN—Other finished leather, n.e.c. Casadesport, S.A. (M), Corcega 327, Barcelona 8. WTD 12/72.

Leather gloves, mittens

31510 — NETHERLANDS — Leather gloves, mittens for industrial, dress, sports use. Direct purchase or agency requested for the Benelux countries. Modana B. V., Attn: D. Van Huiden (I, D), 101-103 N.Z. Voorburgwal, Amsterdam. WTD 10/72.

Flat glass

32112—JAMAICA—Plate glass for furniture table tops. Speci.: 18 in. by 30 in.; 18 in. by 48 in.; 18 in. by 60 in.; 24 in. sq.; 36 in. sq.; all ⅝ in. thick; clear and smoked; smooth finished on all sides. Quotations for 100 sh. ea. size and color or per sq. ft. c.i.f. Kingston required. Mayfair Furniture Co. Ltd., Contact: Richard Hanna (M), 7 Normal Rd., Kingston 16. WTD 12/72.

Pottery, related products

32610 — JAMAICA — Bathroom accessories for high cost housing scheme. Quotations c.i.f. Kingston. Anchor properties (Jamaica) Ltd., Attn: David Lyons (I, Real Estate Developer), 18 Hope Rd., Kingston 10. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32950 — GERMANY — Quintus sand — a very clean quartz sand for fusing; 100 to 200 tons per mo. O. Priess & Co. GmbH (I), 2 Hamburg 19, Bismarckstrasse 26. WTD in prep.

Steel mill products

33124 — INDONESIA — 1500 tons per month in 1973 hot rolled steel strip used for making one-half in. up to 3 in. tubes for water and gas. 2000 tons per month will be needed in 1974. P. T. Indonesian National Steel Tube Co. (M), Jalan Baros 57, Cimahi, Bandung, Attn: Kiyat Soekarta, Dir. WTD in prep.

33128 — INDIA — Stainless steel bars and shapes according to following descriptions, specifications, and quantities: 90mm diameter bar; SS 316 ASTM-A-479 GR F-16; 2,600 kgs.; 75 mm diameter bar SS 316 ASTM-A-479 GR F-16; 1,100 kgs.; 100 mm diameter bar SS 410 ASTM-A-276; 5,600 kgs.; 45 mm diameter bar SS 410 ASTM-A-276; 4,800 kgs.; 10 mm across flat hexagonal bar; SS 316 ASTM-A-193; 7,500 kgs.; 17 mm across flat hexagonal bar; SS 316 ASTM-A-

193; 80 kgs.; 12 mm diameter bar SS 316 1,800 kgs.; 50 mm x 16 mm flat; SS 410 ASTM-A-193; 200 kgs.; 20 mm diameter bar SS 316 ASTM-A-193; 120 kgs.; 20 ASTM-A-24; 250 kgs.; 1/4 in. outer diameter x 22 SWG tube; SS 316 ASTM-A-376; 1,200 meters. Turner Hoare & Co., Ltd. (M), P.O. Box No. 7802, Signal Hill Ave., Tank Rd., Bombay 33. Attn: Mr. J. Bunstan Lobo.

Rolling, drawing, extruding of nonferrous metals

33520—UNITED KINGDOM—Aluminum foil 0.018 mm thick, 12 in., 18 in. rolls x 5000 yds. wound on 3 in. cores. Fay International Ltd. (M, D, I), Friendly House, 21-24 Chiswell St., London, EC1Y 4UD. WTD in prep. To be shipped from U.S. to Trinidad. Quotations requested c.i.f. Port of Spain.

33570 — GERMANY — Soft resistance wire, nickel-iron alloy, 70% nickel, 30 % iron, 0.04 millimeter diameter, 3500 temperature of 25C-160C for use in electronic components. C. R. L. Electronic Bauelemente GmbH, Contact: Mr. Zerfass, (M, I), 505 Porz/Rhein, Kaiserstr. 21. WTD in prep.

Metal cans

34110 — MALTA — Nickel plated brass cans with lead for tantalum capacitors. Two sizes required: approx. sizes as follows: Size A height 0.265 in., outer diameter 0.216 in., inner diameter 0.106 in. Size B: height 0.452 in., outer diameter 0.173 in., inner diameter 0.153 in. Lead specif.: length 1.525 in., diameter 0.025 in. Catalogs, samples requested. General Instrument Europe (Malta) Ltd. (M), Ramliga Rd., Kirkop; P.O. Box 386, Valletta. WTD in prep.

Cutlery, hand tools, general hardware

34231 — SWITZERLAND — Novel type tools for mechanics hand service. Direct Attn: H. Claesson, (A, D), c/o Buchholtu GS Und Revisions AG Neugasse 29, 6300 ZUG. WTD 11/72.

Fabricated structural metal products

34434 — INDIA — 240 Empty gas cylinders of seven cubic meter capacity for such gases as oxygen, nitrogen, acetylene. Desired spec. is BS/DOT/BS 341 fitted with valves is-3224. Everes Prefrigerants Ltd. (M), Post Box No. 1851, Bombay 1. WTD in prep.

34443—SWEDEN—Stainless steel elbow pipes, dimension ¾ in. to 2 in. in diameter, for nuclear projects. Ahlsell & Agren AB (I, A, D), Fack, S-402 50 Goteborg 13. WTD 11/71.

Coating, engraving, allied services

34790 — GERMANY — Electrically conductive (anti-electrostatic) coatings for extruded plastic parts and other applications. Gottfried Reuter GmbH (I, D, M, research and development), 2844 Lemfoerde, P.O. Box 14. WTD in prep.

Fabricated metal products

3494339 — GERMANY — Diaphragm operated pressure reducing value, asi 316; diaphragm of teflon or viton. Inside dia. 1/2" to 2"; suitable for prepressure 3 atu, reduced pressure. 9,3 atu to 1,0 atu for desalted water 20 degrees C. Direct purchase, agency. Armaturen Riedel KG (A, D), 49 Franz Werfel Strasse, 6 Frankfurt/Main-Ginnheim. WTD under prep.

Farm machinery

35223 — GERMANY — Machinery, implements for forestry and nursery, tree planting, fertilizing, spraying, seeding, forest clearing. Ch. Geigle Nachfolger (I, D, R), 54 Herrenberger Strasse, 7270 Nagold. WTD 12/72.

35227 — JAMAICA — Parts for power lawn mowers for assembling 1 1/2 to 14 hp units. Wills Battery Co., Ltd., Attn: W. D. Soutar (I, A, D) 66 Slipe Rd., Kingston 5. WTD 11/72.

35228 — TURKEY — Machinery for 200 ton per day capacity direct extraction, refining sunflower oil for firm's own project Elazig and same equipment with 100 ton/day capacity for project Tekirday in Thrace. Also desires machinery for drying 6,000 tons/year onions, 2,000 tons garlic, 3,000 tons other vegetables. Bogazhesen Caddesi (I, A, M), Sungurlar Han No. 63, Tophane, Istanbul. WTD 11/71.

Construction, mining, materials handling machinery, equipment

35314 — TURKEY — Synchro-lift capable lifting maximum 100,000 ton vessels. Sungurlar Isi Sanayii A.S. (M), Bogazhesen Caddesi, Sungurlar Han No. 63, Tophane, Istanbul. WTD 11/71.

Metalworking machinery

35411 — GERMANY — Boring machines metal cutting type. Direct purchase & agency. Fleissner GmbH & Co. (M, D), 6073 Egelsbach Near Frankfurt/Main. WTD 7/71.

35412 — GERMANY — Drilling machines, metal cutting. Direct purchase & agency. Fleissner GmbH & Co. (M, D), 6073 Egelsbach Near Frankfurt/Main. WTD 7/71.

35414 — GERMANY — Machines for grinding of chuck jaws, of lathe chucks; machining of gear rims, drive wheels. Direct purchase & agency. Fritz Riedel (A, D), 15 Kleine Friedberger Strasse, 6 Frankfurt/Main. WTD in prep.

35414 — GERMANY — Grinding, honing, lapping, polishing, buffing machines. Direct purchasing & agency. Fleissner GmbH & Co. (M, D), 6073 Egelsbach Near Frankfurt/Main. WTD 7/71.

35415 — GERMANY — Lathes, metal cutting type for factories. Direct purchase & agency. Fleissner GmbH, & Co. (M, D), 6073 Egelsbach Near Frankfurt/Main. WTD 7/71.

35484 — JAMAICA — Automotive maintenance equipment, especially for body repair work, 110 or 220 volts, 50 cycle. Brochures, quotations requested. Sinclair's Garage Ltd. Attn: Mr. J. Crawford (I, R, automobile dealer), P.O. Box 400, Kingston. WTD 12/72.

35484—NIGERIA—Equipment for establishment of complete mechanical workshop for maintenance, repair of passenger, commercial vehicles, earth moving equipment. Direct purchase & agency. Samdeley (Nigeria) Ltd. (I, D), 1, Jibowu St., Ikorodu Rd., Yaka, P.O. Box 3342, Lagos. WTD in prep.

Special industry machinery

35511 — SPAIN — Margarine processing machine. Correspondence in Spanish. Manuel Pablos E. Hijos, S.A., Sevilla (M), Marques de Parades 32, Sevilla. WTD in prep. Catalogs, price quotations requested.

35512 — TURKEY — Potato products plant to produce potato chips, frozen for french fry, also potato flake and granules. Capacity one ton/hour three shift operation desired. Aktas Gida Sanayii A.S., Attn: Aydogan San (M), Buyukdere Caddesi 84, Esentepe, Istanbul. WTD in prep. Catalogs and quotations requested.

35513 — HONDURAS — Complete machinery, equipment to process and can meats, i.e. beef, pork, capacity 600 - 1,000 4-8oz. cans per hour. Catalogs, descriptive materials, price list requested. Handal's, Attn: Dr. J. Pedro Handal (I, A, R), Apartado 5, Tegucigalpa. WTD 2/70.

35513 — SPAIN — Margarine packaging machine. Correspondence in Spanish. Manuel Pablos E. Hijos, S.A. (M), Marques de Parades 32, Sevilla. WTD in prep. Catalogs and price quotations requested.

35513—TURKEY—Machinery to process, can concentrated orange juice. Fresh citrus fruit packing house equipment for washing, drying, waxing, sizing, boxing. Catalogs and proposals requested. Fintas, Finike, Attn.: Fikri Sekerci, Vice Pres. (I, M).

35540 — UNITED KINGDOM — Battery manufacturer requires carton making machine or similar which will package battery plates. Need is to make shallow boxes with sidewalls into which a plate is placed, preferably automatically, and box shut and sealed. Box material is special separator material which has general characteristics of this cardboard. Typical box dimensions need to be 14 in. x 5½ in. x ¼ in. with the 14 in. dimension variable down to 5 in. Box seam should be down the ¼ in. side of box. Embassy of the United States of America, Attn: Bradford W. Miller, Jr., Commercial Officer, 24/31 Grosvenor Sq., W. 1, Box 40, FPO New York, N.Y. 09510.

35591 — PARAGUAY — Equipment for production of essential oils, guaiac wood, petitgrain, mint, cedron, lemon. Enrique Sanchez Ocampo (Consulting Engineer), Casilla 903, Asuncion. WTD in prep.

35591—SWEDEN—Small size apparatus for the manufacture of stabilized chlorine dioxide (C10 2). Simbaco AB (A, D), Trekantsgatan 10, S-252 54 Helsingborg. WTD in prep.

35593 — THAILAND — Machinery using PVC as raw material to produce small plastic bottles containing hair shampoo. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. The Lauris Co., Ltd., Attn: C. R. Boons, Mng. Dir. (M, D), 326/1-5 Surawongse Rd., Bangkok. WTD in prep.

35595—INDIA—Machinery and plant for manufacture of detonating fuse (cord) on the basis of penthrite with capacity of 9920 meters in 8 hrs.; equipment for manufacture of penta crythritol tetra nitrate. Imperial Explosives Ltd. (M), 1 Police Station Rd., Sivakasi, Tamil Nadu. WTD in prep.

General industrial machinery

35611 — GERMANY — Pumps, multipurpose, heat transfer pumps. Direct purchase & agency. Scheele Und Mark (SUM) (D, A, I), 17-19 Heinigstrasse, 67 Ludwigshafen-Rhein. WTD in prep.

35611 — NETHERLANDS — Industrial pumps for use with circulation, cooling,

other systems requiring the conveyance of fluids. Direct purchase and/or representations requested for the Netherlands or the European Common Market countries. Kuyl & Rottinghuis N. V., Attn: J. Ten Holter (I, A, D), 31-33 Mariastraat, Utrecht. WTD 10/72.

35612 — GERMANY — Vacuum pumps (8,000 units per yr.). A & P. Schulz (D, I), 8 Schwarzwaldhof, 78 Freiburg I.B. WTD 12/72.

35616 — NETHERLANDS — Attachments, accessories for fluid pumps for use in industry. Direct purchase and/or representations requested for the Netherlands or the European Common Market countries. Kuyl & Rottinghuis N. V., Attn: J. Ten Holter (I, A, D), 31-33 Mariastraat, Utrecht. WTD 10/72.

35642 — GERMANY — Electronic air cleaners for use in hospitals. Boreas-Tiefkuehl-und Gefrierschraenke GmbH, Attn: Herr von Odenkirchen (I, A, exporter), 4 Dusseldorf, Rheinallee 115. WTD in prep.

35690 — KOREA — Filters, strainers, industrial use machinery. Brochures, quotations, delivery terms. Dong Rip Enterprise Co. (M), 80, 3-Ka, Yungsun-Dong, Yungdo-ku, Pusan. WTD in prep.

Office, computing, accounting machines

35720—SPAIN—Electric, electronic typewriters. Direct purchase & agency. Enrique Lopez, S.A. (I, D, R), Raimundo Fernandez Villaverde 51, Madrid (3). WTD 12/72.

35731 — SPAIN — Electronic computing equipment. Direct purchase & agency. Enrique Lopez, S.A. (I, D, R), Raimundo Fernandez Villaverde 51, Madrid (3). WTD 12/72.

35731 — SWITZERLAND — Mini-computer for storing, retrieving 10,000 to 40,000 addresses, automatic telephone dialing. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTD 12/72.

35740 — SPAIN — Calculating machines. Direct purchase & agency. Enrique Lopez, S.A. (I, D, R), Raimundo Fernandez Villaverde 51, Madrid (3). WTD 12/72.

35743—SPAIN—Parts, attachments for calculating, accounting machines. VDA. E Hijos de Jose Sitjar, S.R.C. (M), Espronceda, 240, Bajos, Barcelona 5. WTD 11/72.

35760 — SWEDEN — Crane scales with a capacity of 2 metric tons or more, with an accuracy of 2 kilograms. Broderna Edstrand AB (A, D, I), Box 8980, S-402 74 Goteborg 8. Attn: I. Danehed; Telex: 2534 Edstrand GBG; Cable: Edstrandsbolag. WTD 2/72.

Service industry machinery

35851 — GERMANY — Humidifiers for air conditioning plants (500 units per year); icecube makers, 20-100 kg/tag (100 units per year). A. & P. Schulz (D, I), 8 Schwarzwaldhof, 78 Freiburg I.B. WTD 12/72.

35852—GERMANY—Room airconditioners. Direct purchase & agency. Scheele und Mark (SUM) (D, A, I), D-67 Ludwigshafen-Rhein, Heinigstrasse 17-19. WTD in prep.

35860 — NORWAY — Measuring, dispensing pumps, other hardware for gasoline tank transport trucks. PER Schoyen A/S (M), P.O. Box 10, 1963 Fosser. WTD in prep.

35892—GERMANY — Water treatment/purifying plants working on reverse osmosis principle. Direct purchase & agency. Warme-und Lufttechnische Gerate GmbH (M, D), 7 Seehofstrasse, 6 Frankfurt/Main 70. WTD in prep.

Machinery

35990 — GERMANY — Leak detectors, charging cylinders, piercing valves, 8,000 units per yr. A. & P. Schulz (D, I), 8 Schwarzwaldhof, 78 Freiburg I.B. WTD 12/72.

Electric transmission, distribution equipment

36121 — BELGIUM — Rotary transformers, from 50 to 60 HZ. Catalogs, descriptive materials requested. S. Andre Deligne (A, I), Residence Praetoria, Ijzerweglaan 52, 9002 Ledeberg. WTD in prep.

Electrical industrial apparatus

36215 — BELGIUM — Generator set, 500 KVA to 1000 KVA. Catalogs requested. S. A. Andre Deligne (A, I), Residence Praetoria, Ijzerweglaan 52, 9002 Ledeberg. WTD in prep.

Household appliances

36360 — DENMARK — Parts, attachments for industrial sewing machines. L. Thornberg, Lystrup A/S (I, D), 25 Birkebakken, DK 8520 Lystrup. WTD in prep.

36393 — SWEDEN — Solid waste disposals for households. Husqvarna Vapenfabriks AB, Attn: Sune Wilhelmsson (I, A), Fack, S-561 01 Husqvarna. WTD 7/71.

Electric lighting, wiring equipment

36410 — FRANCE — Electric pilot and signal lamps for all industrial applications and for such lamps, neon bulbs for E 10, E 14, BA 9 S and miniature sockets, and incandescent bulbs of all shapes for E 10, E 14 and printed circuit socket. Direct purchase & agency. Correspondence should be in French. Catalogs, price lists, detailed technical descriptive materials requested. Diceep, S.A. (I, D), 17 Route Nationale, Laneuvelotte, 54420 Saulxures-les-Nancy. WTD in prep.

Radio, television receiving sets

36520 — SPAIN — Video tape cassettes for libraries and schools. Caja de Ahorros del Sureste de Espana (end user), San Fernando 40, Alicante. WTD 12/72.

Communication equipment

36620 — GERMANY — Light marine equipment; radar systems, equipment; signaling agents. Gematronik GmbH (M, D), 4041 Rosellen, Raiffeisenstr. WTD in prep.

36623—SWITZERLAND — Mobile traffic safety signals, signalization equipment. Direct purchase & agency. Trim Trade AG, Attn: M. Claesson (A, D), C/O Buchholtungs und Revisions AG Neugasse 29, 6300. WTD 11/72.

Electronic components, accessories

36795 — GERMANY — Electronic components; active, passive, electromechanical for radio and TV industries. EBG-Elektronische Bauelementa GmbH. & Co. KG (M, I, D), 2080 Pinneberg, Wuppermannstrm 1, Attn: Mr. G. Harder. WTD in prep.

36795 — MALTA — Hermetic seals made of glass surrounded by solder used in cans for tantalum capacitors. Specs. as follows: outer diameter between 0.141 inches and 0.159 inches; overall height 0.135 inches. General Instrument Europe (Malta) Ltd. (M), Ramlija Rd., Kirkop; P.O. Box 386, Valletta. WTD in prep.

Electrical machinery, equipment, supplies

36930—SPAIN — Echo encephalographs, central station, bedside intensive care systems. Hosclinsa (I, D), Avda. Jose Antonio, 645, 40 1A, Barcelona 10. WTD in prep. Quotation c.i.f. Barcelona.

Motor vehicles, equipment

37112 — GERMANY — Trucks, over 7 tons. Wesda, Freizeit U. Technik Handels GmbH, Atten: Herr Steiner (I, D), 4032 Lintorf, An Den Dieken. WTD 10/72.

37112 — IRAN — One unit self contained self propelled mobile theater, with generator. Institute for the Intellectual Development of Children and Young Adults (Educational Foundation), Theater Center, Nort Iranshahr Ave., No. 3 Nasser St., Tehran.

37113—HONDURAS—15-20 school buses, 70-passenger capacity, diesel motor, manual 4-gear shift. Quotation, catalogs, descriptive materials requested. Universidad Nacional Autonona De Honduras (UNAH), Attn: Roberto Nunez (National University), Ciudad Universitaria, Tegucigalpa.

Ship building, repairing

37321 — GERMANY — Inboard motorboats. Wesda, Freizeit U. Technik Handels GmbH, Attn: Herr Steiner (I, D), 4032 Lintorf, An Den Dieken. WTD 10/72.

37322 — GERMANY — Outboard motorboats. Wesda, Freizeit U. Technik Handels GmbH, Attn: Herr Steiner (I, D), 4032 Intorf, An Den Dieken. WTD 10/72.

Transportation equipment

37910 — GERMANY — Trailer coaches, housing type and motor homes; parts, accessories. Wesda, Freizeit U. Technik Handels GmbH (contact: Herr Steiner), (I, D), 4032 Lintorf, An Den Dieken. WTD 10/72.

37991 — GERMANY — Automobile trailers. Wesda, Freizeit Und Technik Handels GmbH, contact: Herr Steiner (I, D), 4032 Lintorf, An Den Dieken. WTD 10/72.

37992 — GERMANY — Boat trailers. Wesda, Freizeit U. Technik Handels GmbH, Attn: Herr Steiner (I, D), 4032 Lintorf, An Den Dieken. WTD 10/72.

Engineering, laboratory, scientific, research instruments

38112—GERMANY — Measuring instruments suitable for universities, other research/development laboratories. Direct purchase & agency. Brindi GmbH (A, I, Exporter), P.O. Box 862, D-7850 Loerrach. WTD 12/72.

38112 — NIGERIA — Product literature and prices on physics laboratory equipment for university graduate and undergraduate level teaching. Should include equipment for research in solid-state radio technology, geophysics, x-ray and gama-ray. University of Nigeria. Dept. of Physics, Nsukka, East Central State.

38113—AUSTRALIA—Drafting supplies. Theodor Advokat, Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

Instruments for measurement analysis and control

38220—GERMANY—Test equipment for measuring, regulation of temperature, absolute, relative humidity air volume, air velocity (1,000 units per yr). A & P Schulz (D, I), 8 Schwarzwaldhof, 78 Freiburg I.B. WTD 12/72.

Surgical, medical, dental instruments

38410 — GERMANY — Self-contained portable, mechanically refrigerated unit for pre-amputation. Boreas-Tiefkuehl- und Gefrierschraenke GmbH, Attn: Herr von Odenkirchen (I, A, exporter), 4 Duesseldorf, Rheinallee 115. WTD in prep.

Toys, amusement, sporting goods

39410—AUSTRALIA—Stationery novelties such as games, educational toys, chess sets, playing cards. Theodor Advokat, Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

39493—BELGIUM—Sport equipment in general, novelties. Direct purchase & agency. Durox Belgium, A.A. (M, I, A), Avenue Jean De Bologne 22, 1020 Brussels. WTD in prep.

Pens, pencils, office, artists' materials

39510—AUSTRALIA—Ball point pens. Theodor Advokat, Engelander Trading Co. (D), 191 Old South Head Rd., Bondi Junction, New South Wales. WTD in prep.

Manufacturing industries

39932 — BELGIUM — Road markers, route signs and metal, non-electric; reflecting road line marking machinery. Direct purchase & agency. Ets. Semal, SPRL (M, A, exporter), 3 Ave., du Vert Chasseur, 1180 Brussels. WTD in prep.

Wholesalers

50930 — AUSTRALIA — 100 ton of waste paper - punch cards or white wood-free. Wiggines Teape Shoalhaven Pty. Ltd. P.O. Box 100, Alexandria, N.S.W. 2015. Cable - Gateway Sydney. WTD in prep.

50930 — FRANCE — Scrap & waste materials, waste synthetic fibers. Dodimex (M, D, I), 3, Rue Du Nord, 59053 Roubaix- Cedex 01. WTD 10/72.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Meat products

20119 — KOREA — Cow hides (54-56, 56-58, 58-60 lbs/pc); steer hides (70-72, 72-74 lbs/pc). Doyang Trading Co. (A), I.P.O. Box 2698, Seoul. WTD in prep.

Confectionery

20715—NETHERLANDS — Bubble gum, chewing gum, lollypops, other candy for children at .02 - .04 and .08 cents each. Exclusive rights for Benelux area. Hanka B.V. (I, D. exporter), Attn: A. F. Biemans, Mgr. WTD in prep.

Food preparations

20999 — NETHERLANDS — Delicacies, specialties packed in tins or cartons. Exclusive rights for the Netherlands. Niels de Veye B.V. (I, A, D), Attn: S.T. V.D. Basch, Mgr. WTD 11/72.

Broad woven fabric mills, cotton

22110 — BELGIUM — Cotton fabrics for ladies and men's wear. Claushuis, SPRL (Agences en Textiles) (A), 22 Place du Nouveau Marche Aux Grains, 1000 Brussels. WTD in prep.

22110 — THAILAND — Baby blankets. Request catalogs and export price list. Khazan Singh Awtar Singh., Attn: Somchai Singhsachathet. (I, D, R), P.O. Box 857 Bangkok. WTD in prep.

22113 — BELGIUM — Cotton print cloth yarn fabrics (gray goods) broadwoven. J. P. de Ryckere — Textile Agencies (A), Place des Barricades 5, 1000 Brussels. WTD in prep.

22115 — BELGIUM — Cotton fabrics, fine (gray goods), broadwoven. J. P. de Ryckere — Textile Agencies (A), Place des Barricades 5, 1000. Brussels. WTD in prep.

Broad woven fabric mills, manmade fiber, silk

22210 — BELGIUM — Fabrics broad woven; man-made fiber, silk, wool. Claushuis, SPRL (Agences en Textiles), (A), 22 Place du Nouveau Marche aux Grains, 1000 Brussels. WTD in prep.

Floor covering mills, products

22711 — AUSTRIA — Wall-to-wall floor coverings made of wool. Catalogs, prices requested. Intrapex, Handels GmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

22712 — AUSTRIA — Wall-to-wall floor coverings made of man-made fibers. Catalogs, prices requested. Intrapex, Handels BmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

22720 — AUSTRIA — Wall-to-wall floor coverings made of tufted materials. Catalogs, prices requested. Intrapex, Handels GmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

Yarn, thread mills, products

22813 — BELGIUM — Tufting yarns, spun, rayon and acetate — gray or finished in spinning mills. Textile Agencies & Marketing (Luc Heymans) (commission agent), P.O. Box No. 12, 1070 Brussels, and 158-160 Rue A. Willemijns, 1070 Brussels (Home address). WTD in prep.

22814 — BELGIUM — Tufting yarns, spun, manmade fiber and silk, gray or finished yarn spinning mills. Textile Agencies & Marketing (Luc Heymans) (commission agent, broker). P.O. Box No. 12, 1070 Brussels, and 158-160 Rue A. Willemijns, 1070 Brussels (home address). WTD in prep.

22842 — BELGIUM — Thread and manmade fiber for industrial use. Textile Agencies & Marketing (Luc Heymans) (commission agent, broker), P.O. Box No. 12, 1070 Brussels, and 158-160 Rue A. Willemijns, 1070 Brussels (home address). WTD in prep.

Textile goods

22951 — BELGIUM — Fabrics: light and heavy cotton. J. P. de Ryckere — Textile Agencies (A), Place des Barricades 5, 1000 Brussels. WTD in prep.

Men's, boys' furnishings

23214 — NORWAY — Men's, youths', boys' shirts, except work shirts. High quality shirts made in the U.S. Yngvar Arenstedt (I, A), Hegdehaugsveien 23 B, Oslo 3. WTD 6/72.

Partitions, shelving, lockers, office, store fixtures

25420 — SWITZERLAND — Office furniture, similar items for work organizing, rationalization purposes. A-Z Import Export GmbH (I, D), Postfach, 8617 Moenschaltdor. WTD in prep.

Converted paper, paperboard products

26451 — SWITZERLAND — Office work organizing items mainly for EDP software, similar items. A-Z Import Export GmbH (I, D), Postfach, 8617 Moenschaltdor. WTD in prep.

Synthetic materials

28210 — UNITED KINGDOM — Polymers or chemicals associated with polymers. Revertex Holdings Ltd. (M, D), West Rd., Temple Fields, Harlow, Essex, Attn: J. P. Brown, Corporate Planning Mgr. WTD in prep.

28213 — GERMANY — Thermostatic resins. Helmut Koenig (A). 5962 Drolshagen, Alte Landstr. 23. WTD in prep.

2821479 — GERMANY — Silicone resins. Union Chemie, E. P. Jaeger, Export-Import, Contact: Dr. M. Jaeger, (D, I), 4 Duesseldorf-Reisholz, Oberschbachstr. 39. WTD in prep.

2821498 — GERMANY — Other thermosetting resins based on furan, acetone formaldehyde. Union Chemie, E. P. Jaeger, Export-Import, Contact: Dr. M. Jaeger, (D, I), 4 Duesseldorf-Reisholz Oberschbachstr. 39. WTD in prep.

2821611 — GERMANY — Synthetic resins for protective coatings based on acrylic, styrene-butadiene. Union Chemie, E. P. Jaeger, Export-Import, Contact: Dr. M. Jaeger, (D, I), 4 Duesseldorf-Reisholz, Oberschbachstr. 39. WTD in prep.

28238 — GERMANY — Acrylic resins. Union Chemie, E. P. Jaeger, Export-Import, (contact: Dr. M. Jaeger), (D, I), 4 Dusseldorf-Reisholz, Oberschbachstr. 39. WTD in prep.

282389 — GERMANY — Thermoplastic resins such as polycarbonate, polyterpene. Union Chemie, E. P. Jaeger, Export-Import (contact: Dr. M. Jaeger), (D, I), 4 Duesseldorf-Reisholz, Oberschbachstr. 39. WTD in prep.

282431 — GERMANY — Polyester

resins, including unsaturated alkyd resins copolymerized with vinyl acetate, methylmethacrylate, polyallyl resins. Union Chemie, E. P. Jaeger, Export-Import, Contact: Dr. M. Jaeger, (D, I), 4 Duesseldorf-Reisholz, Oberschbachstr. 39. WTD in prep.

Drugs

28340 — HONG KONG — Pharmaceuticals. K. C. Leong & Co. Ltd. (I, A, D), Rm. 203 Hang Chong Bldg., 5 Queen's Rd. C., Hong Kong. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28424 — SPAIN — Automobile body polish, cleaners. Suministros Industri les Alonso Rubio (I, A, R), Doctor Esquerdo 43, Madrid 28. WTD 12/72.

Chemical products

28993 — BELGIUM — Insulation products, heat, electric, etc., flameproof equipment. Entreprise Electro-Equipment Europe, SPRL. (I), Avenue Montjoie 142, 1180 Brussels. WTD in prep.

28993 — GERMANY — Advanced chemical compounds for electronic industry, except alumina parts and cermet pastes. Demetron GmbH (M), 6450 Hanau/Main, Postfach 207. WTD 12/72.

2899355 — FRANCE — Heat insulation products. Amisol, S.A. (D, M, I), 52, Rue Des Acacias, 75017 Paris. WTD in prep.

Plastic products

30795 — AUSTRIA — Plastic transmission belts for industrial applications. Exclusive rights for East European markets. Specifications, price quotations requested. Intrapex, Handels GmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32960 — NETHERLANDS — Sound attenuation, vibration insulation materials. Frigo — Import B.V. (I, D, Installer), P.O. Box 29, Berkel en Rodenrijs, Attn: J. L. Donkersloot, Mgr. WTD 8/72.

Rolling, drawing, extruding of nonferrous metals

33574 — AUSTRIA — Coaxial cables and flexible flat cables for low- and high-voltage (up to 220v) applications. Specifications, price quotations requested. Josef Feller, Fabrik Isolierter Draehte und Kabel, Attn: Mr. Kamitz (A, D, M), Kaiserstrasse 54, A-1070 Vienna. WTD in prep.

Heating apparatus, plumbing fixtures

34320 — FRANCE — Standing and/or underground garden sprinklers. Catalogs, price lists requested. Chatoiseau Robinetterie (I, A, D), B. P. 150, 33140 Pontdelamaye. WTD 12/72.

34336 — NETHERLANDS — Unit air heaters, suspending and floor models, residential and industrial waterheaters. Agpo Oomens B.V. (I, D, Installer/Engineering Consultant), P.O. Box 364, Breda, Attn: A. G. P. Oomens, Mgr. WTD 11/72.

Screw machine products

34510 — AUSTRIA — Screwed pipe couplings for automotive industry. Exclusive rights for East European markets. Specifications, price quotations requested. Intrapex, Handels GmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

Fabricated metal products

34940 — UNITED KINGDOM — Electric valve actuators for control of wedge gate valves, penstocks, globe valves, plate valves & ball valves; 90 degree valve actuation for control of ball and plus valves. Taylair Control Ltd. (I, D), 295 Great Brickkiln St., Wolverhampton, Staffordshire. WTD in prep.

34941 — AUSTRIA — Metal valves, fittings for pipe lines (natural gas, petroleum), refineries, petro-chemical, other chemical industries. Exclusive rights for Austria. Catalogs, technical specs., price quotations requested. Hubner-Vamag S.G., Attn. Dr. Franz Jurkowitsch (I, A, D), Muthgasse 64, A-1191 Vienna. WTD 1/72.

34941 — GERMANY — Valves, temperature and control. G.S.T. Regeltechnik GmbH, Attn: Dr. W. Wegener, (M, I), 463 Bochum-Riemke, Rensingstr. 8. WTD in prep.

Farm machinery

35220 — JAMAICA — Farm machinery: wheel tractors and attachments; planting, seeding and fertilizing machinery; harvesting machinery. Brochures, quotations requested. Sinclair's Garage Ltd., contact: Mr. J. Crawford (I, R, automobile dealer), P.O. Box 400, Kingston. WTD 12/72. Probably will require extensive technical assistance to learn operation and repair of agricultural machinery.

Construction, mining, materials handling machinery, equipment

35370 — ISRAEL — Industrial trucks, tractors, powered; motorized/industrial handtrucks, trailers including dollies, platform trucks, metal pallets, skids; parts, attachments. Zeev A. Glogau (I, A), 9 Nathan St., P.O. Box 2690, Ramat-gan 52100. WTD 11/71.

Metalworking machinery

35410 — ISRAEL — Boring, drilling, grinding, milling machines; other metal cutting type machines; tools for Zeev A. Glogau (I, A), 9 Nathan St., P.O. Box 2690, Ramat-gan 52100. WTD 11/71.

35420 — ISRAEL — Punching, shearing, bending, forming machines including power and manual; forging machines; metalworking presses including forging and manual presses. Zeev A. Glogau (I, A), 9 Nathan St., P.O. Box 2690, Ramat-Gan 52100. WTD 11/71.

35452 — ITALY — Connecting rods static and dynamic calibrating equipment. Moltrasio Engineering (I, A, D), Via G. Paglia 32, Bergamo. WTD in prep.

35484 — ITALY — Car wheels balancing machinery, equipment. Moltrasio Engineering (I, A, D), Via G. Paglia 32, Bergamo. WTD in prep.

35484 — UNITED KINGDOM — Automotive maintenance, repair tools, any type of body repair equipment. Waregrain Ltd., Mr. Fairbrass, (I, D), 40 Milton Trading Estate, Milton, Abingdon, Berkshire. WTD 12/72.

35485 — ITALY — Balancing machines of all kinds for tunnel fans, rotors, etc. Moltrasio Engineering (I, A, D), Via G. Paglie 32, Bergamo. WTD in prep.

Special industry machinery

35513 — GERMANY — High speed capping machines for bottles; coding printing machines for foils, cartons, cans, etc. High speed filling machines for cosmetic jars; Propack Mehrtens & Doering OHG (I, A), 2 Arndtstrasse, P.O. Box 51 0311, D-7500 Karlsruhe 51. WTD 12/72.

35521 — BELGIUM — Tufting machinery, textile. Textile Agencies & Marketing (Luc Heymans) (commission agent, broker), P.O. Box No. 12, 1070 Brussels, and 158-160 Rue A. Willemijns, 1070 Brussels (home address). WTD in prep.

35540 — SWITZERLAND — Novel paper converting, coating, processing machinery, related equipment for graphic industry, incl. packaging machinery. Regar Sales Ltd., Attn: Pietro Comini, Mgn. Dir. (I, A, D), Via Lucerna 6, 6900 Lugano. WTD 4/72.

35540 — UNITED KINGDOM — Machinery for producing spiral or convolute wound paper or board packaging. Tube Winding (Paper) Co. Ltd., R. H. Maudsley, Managing Dir. (M), 46 Bideford Ave., Perivale, Greenford, Middlesex. WTD in prep.

35550 — SWITZERLAND — Compact office offset printing machines. Buro Meier AG (A, D), Lowenstrasse 19, 8001 Zurich. WTD in prep.

35550 — SWITZERLAND — Novel packaging, printing machinery, instruments, accessories for graphic industry. Regar Sales Ltd., Attn: Pietro Comini, Mgn. Dir. (I, A, D), Via Lucerna 6, 6900 Lugano. WTD 4/72.

35595 — GERMANY — Special industrial machinery for manufacture of electric motors. Guha Wagner KG (A, D), 10 Sperberstrasse, 7232 Bad Doden. WTD in prep.

General industrial machinery

35611 — GERMANY — Pumps, for various purposes, except heating. Guha, Wagner Industrie Produkte KG (A, D), Sperberstrasse 10, 6232 Bad Soden A.TS. WTD in prep.

35616 — GERMANY — Fittings, mountings, thermostats, other parts necessary for heating systems. Guha, Wagner Industrieprodukte KG (A, D), Sperberstrasse 10, 6232 BAD Soden A. TS. WTD in prep.

35690 — JAPAN — Industrial machinery, except machine tools, textile machinery. Ataka & Co., Ltd., Kitakyushu Office (I, A, D), 8-1 Edamitsu Honmachi, Yawata-ku, Kitakyushu City. WTD 4/72.

Office, computing, accounting machines

35720 — SWITZERLAND — Electric typewriters. Buro Meier AG (A, D), Lowenstrasse 19, 8001 Zurich. WTD in prep.

35731 — ISRAEL — Electronic hotel-room status equipment including appropriate electronic computing machines, accessories. Asher Feuchtwanger Ltd. (I, D, Exporter), P.O. Box 4857, Tel Aviv. WTD 3/70.

35741 — SWITZERLAND — Medium sized electronic desk calculators. Buro Meier AG (A, D), Lowenstrasse 19, 8001 Zurich. WTD in prep.

35741 — UNITED KINGDOM — Coin counting equipment. Vacuumatic Ltd., J.

W. Bramall, (A, I, M), Harwich, Essex. WTD 8/72.

35790 — UNITED KINGDOM — Coin wrapping, sorting equipment. Vacuumatic Ltd., J. W. Bramall, (A, I, M), Harwich, Essex. WTD 8/72.

35791 — SWEDEN — Folding machines, other types of machines for handling, addressing, mailing, etc. of papers. AB P.A. Segenmark (I, A, D), Industrivagen 4, S-191 47 Sollentuna 1. WTD 4/72.

Service industry machines

35852 — BELGIUM — Air-conditioners, room. Sovac S.A. (M, I, A), 21, Ave. G. Benoidt, 1170 Brussels. WTD in prep.

35854 — UNITED KINGDOM — Compressors and compressor units for refrigeration equipment. Aeronca Internation Ltd. Attn: S. F. Harrison (A, I, M), Berkshire House, Maidenhead, Berkshire. WTD in prep.

35857 — NETHERLANDS — Refrigeration, air conditioning parts. Frigo — Import C.V. (I, D, Installer), P.O. Box 29, Berkel en Rodenrijs, Attn: J. L. Donkersloot, Mgr. WTD 8/72.

35891 — GERMANY — Microwave ovens; gas-heated deep fat fryers. F. Kueppersbuschstr. 16, P.O. Box 1220. WTD 12/72.

35892 — BELGIUM — Water softeners, conditioners. Sovac S.A. (M, I, A), 21 Ave G. Benoidt, 1170 Brussels. WTD in prep.

35892 — NETHERLANDS — Sludge concentrators and handling equipment. Exclusive rights only. Nierstrasz N.V. (I, D, Installer/Exporter), Attn: K. Bos, Mgr. WTD 9/72.

Electric transmission, distribution equipment

36122 — TAIWAN — Current transformers; main transformer. Tee Lee International Corp. (I, D, A), 15 Hankuo St., Sec. 1, Taipei (100). WTD 4/71.

36131 — BELGIUM — Switchgears, switchboard apparatus, relays, industrial controls. Entreprise Electro-Equipment Europe, SPRL. (I, A, D), Avenue Montjoie 142, 1180 Brussels. WTD in prep.

36134 — TAIWAN — Fuses (spare parts for lightening arrester). Tee Lee International Corp. (I, D, A), 15 Hankuo St., Sec. 1, Taipei (100). WTD 4/71.

Electrical industrial apparatus

36230 — NETHERLANDS — Advanced, high-technology welding systems, components, such as laser, friction, ultrasonic, electron beam welding. Exclusive rights for Benelux area, West Germany. Lastechnische Onderneming Weld-Equip B.V. (I, D, M), P.O. Box 164, Helmond, Attn: H. M. Vroomans, Mgn. Dir. WTD 12/72.

36233 — NETHERLANDS — Quality control equipment for resistance welding. Exclusive rights for Benelux area and West-Germany. Lastechnische Onderneming Weld-equip B.V. (I, D, M), P.O. Box 164, Helmond, Attn: H. M. Vroomans, Mgn. Dir. WTD 12/72.

36293 — BELGIUM — Electrical equipment for industrial use; thermic generators. Enterprise Electro-Equipment Europe, SPRL, (I, A, D), Avenue Montjoie 142, 1180 Brussels. WTD in prep.

Household appliances

36350 — BELGIUM — Cleaners, electric, vacuum. SPRL, Dupont-Drion (home cleaning service) (I, A, services in cleaning and maintenance field), 41 Rue Baron de Castro, 1040 Brussels (offices). WTD in prep.

Electric lighting, wiring equipment

36426 — BELGIUM — Lighting equipment, parts, accessories, indoors, outdoors; lighting fixetures. Enterprise Electro-Equipment Europe, SPRL. (I, A, D), Avenue Montjoie 142, 1180 Brussels. WTD in prep.

36430 — AUSTRIA — Coaxial switches and plugs; electrical connectors (Mil and NAS specifications); multiple plug connectors; test cable assemblies including coaxial types. Specifications, price quotations requested. Josef Feller, Fabrik Isolierter Draehte und Kabel, Attn: Mr. Kamitz (A, D, M), Kaiserstrasse 54, A-1070 Vienna. WTD in prep.

36430 — CANADA — Mechanical components and hardware (made to mil. specs.) for electronics industry, such as computer terminals, audio-video terminals, panel hardware, handles and feedthroughs. Exclusive agency or distributorship for all of Canada. John G. Weis Co. Ltd. (I, A, D), 5725 Monkland Ave., Montreal 260, Quebec. WTD 12/72.

36430 — TAIWAN — Electrical contacts, (alloy); terminals & connectors for electrical devices. Tee Lee International Corp. (I, D, A), 15 Hankuo St., Sec. 1, Taipei (100). WTD 4/71.

Radio, television receiving sets

36515 — SWITZERLAND — Amplifiers for professional music transmission, sound systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTD 12/72.

Communications equipment

36620 — IRAN — VHF, UHF, portable transceivers, handy talkies, radio telephones, AM SSB transceivers, paging equipment. Further specifications should be determined through direct correspondence. Daftar Machine Co., Let. (I, A, D), Daftar Machine Bldg., Abassabad & Roosevelt Ave., Tehran.

36621 — THAILAND — Transmitter, receivers, VHF/FM. 60 watts, vehicle type, 12 volts; single side band, 100 watts, vehicle type, 12 volts; FM, 5 watts, walkie-talkie; AM, 5 watts, walkie-talkie; VHF/FM, 60 watts, 2 channels 12-volt battery; VHF/FM, 5 watts, walkie-talkie; single side band, 100 watts, 4 channels, AC supply. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. Bura Ltd., Part., Attn: Dr. Omsin Bulpakdi. (I, D, A), 45 Soi Attavimol, Rajprarob Rd., Bangkok. WTD in prep.

36622 — SWITZERLAND — Close circuit color television systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTD 12/72.

36623 — GERMANY — Electronic alarm, signal systems, safety control equipment. Peters, Siegfried, Elektronic (D, I), 415 Krefeld, Suedwall 80. WTD in prep.

36623 — NETHERLANDS — Complete wire-less perimeter alarm system. Exclusive rights for Benelux. Medox B.V. (I, D, Installer), Attn: P. B. Meijer, Mgr. WTD in prep.

36623 — SWITZERLAND — Office, business intercommunication systems, paging systems, signalling, alarm equipment; walkie-talkies. Paul Fuchs (I, A, D), Postfach 342, 001 Lausanne. WTD 12/72.

36625 — GERMANY — Air-borne infrared line scanning systems for air/gas pollution analysis. C. T. Labor Serwatzky, Attn: Mr. Serwatzky (I, A), 10 Maarweg, 5300 Bonn-Ippendorf. WTD 12/72.

36625 — SWITZERLAND — Electronic search, detection apparatus, burglar alarms, security systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTD 12/72.

36626 — SWITZERLAND — Laser transmission systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTD 12/72.

Electronic components, accessories

36740 — SOUTH AFRICA — Semiconductors, transistors. Catalogs, descriptive materials requested. Radiokom (1969) (Pty) Ltd. (I, A, D), P.O. Box 31235 Braaamfontein, Johannesburg. WTD in prep.

36795 — THAILAND — Remote control apparatus, VHF/FM, 2-channel, 12-volt battery watt meters for 2- system radio control heads for VHF/FM transmitter/receivers w/cables, 2-channel. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. BURA Ltd., Part., Attn: Dr. Omsin Bulpakdi (I, D, A), 45 Soi Attavimol, Rajprrob Rd., Bangkok.

Electrical machinery, equipment

36930 — GERMANY — Electromedical apparatus. Helmut Kenig (A), 5962 Drolshagen, Alte Landstr. 23. WTD in prep.

36996 — TAIWAN — Electrical resistant wire. Tee Lee International Corp. (I, D, A), 15 Hankuo St., Sec. 1, Taipei (100). WTD 4/71.

Engineering, laboratory, scientific, research instruments

38112 — PORTUGAL — Oceanography, hydrography instruments, apparatus. Equipamentos de Laboratorio, Lda. (A), Apartado 1100, Lisbon 1. WTD 8/72.

Instruments for measurement analysis and control

38216 — NETHERLANDS — Smoke indicators, alarms, other environmental monitoring, detecting devices, dynamometers. Exclusive rights only. Nierstrasz N.V. (I, D, Installer/Exporter), 60-62, Plantage Middenlaan, Amsterdam, Attn: K. Bos, Mgr. WTD 9/72.

38220 — AUSTRIA — Submersible thermometer probes for steel industry. Exclusive rights for East European markets. Technical descriptions, price quotations requested. Intrapex, Handeles GmbH, (A), Landstrasser Hauptstrasse 45, A-1030 Vienna. WTD in prep.

Optical instruments, lenses

38310 — GERMANY — Optical elements, assemblies. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTD in prep.

Surgical, medical, dental instruments

38410 — PORTUGAL — Metal syringes, needles for veterinary use. Labo-

ratorio Sorologico (M), Avenida Casal Ribeiro 34-A, Lisbon 1. WTD in prep.

38423 — SWEDEN — Life jackets for dogs, luminous, handle on back so dog can be lifted out of the water. AB Georg A. Bastman (I, A, D), Nybrogatan 1, S-114 35 Stockholm. WTD in prep.

38410 — SWITZERLAND — Advanced surgical and medical instruments, apparatus and supplies, all kinds, except sophisticated electronic and monitoring equipment with servicing problem. Margo Jeannet S.A., Attn: Claude Rosset, Dir. (I, D, R), Pre-du-Marche 2/4, 1000 Lausanne. WTD 7/71.

Photographic equipment, supplies

38612 — SWITZERLAND — Photocopying machines, other office type copying equipment. Buro Meier AG (A, D), Lowenstrasse 19, 8001 Zurich. WTD in prep.

Toys, amusement, sporting goods

39410 — NETHERLANDS — All kinds of metal, wood, battery operated, plush toys, novelties. Fonteyn Swart B.V. (I, A, Exporter), Groothandelsgebouw, Weena 723, Rotterdam, Attn: S. M. Swart, Mgr. WTD in prep.

Machinery, equipment, and supplies

50850 — GERMANY — Industrial diamonds. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTD in prep.

Future Construction Abroad

MOROCCO—The Government of Morocco invites firms to prequalify to bid on the construction of one or more of **three educational establishments**: 1) A National Pedagogic Institute, 2) A Teacher's Training College, 3) Six Regional Pedagogic Centers. Total cost of the three groups is estimated at $6.9 million. Interested firms should send, under registered and sealed envelope, the following information: a) Name of firm, complete address, and amount of capital, b) Financial references, c) Technical references including similar work realized the last three years, number of personnel, administrative and technical executives, euipment and facilities. Correspondence preferably in French to Ministere de L'Education National, Direction De La Cellule des Projects Education, Rabat. Prequalification deadline: 3 p.m., Feb. 15.

CANADA — Premier Ed Schreyer, as Minister responsible for Manitoba Hydro, has announced that the utility will proceed with the planned **hydroelectric development and EHV transmission of the lower Nelson River** over the next 15 years. The development will take the form of four similar generating stations to be built between the Kettle dam and the mouth of the river. Long Spruce, about 14 miles downstream, will be started immediately and will be followed by stations at Upper and Lower Limestone Rapids and finally at Gillam Island near the mouth of the Nelson. The four stations will add about four million kilowatts of hydroelectric generation to the provincial system. They will represent an investment of at least $1.5 billion. Additional information is available from the U.S. Department of Commerce, Trade Opportunities Section, BIC-267, Rm. 4813, Washington, D.C. 20230.

FRANCE—The Swiss group Monteforno has bought 12 hectares of land in the Toulon industrial zone at La Garde to build a **small steel plant** called CUDACIER. It will use scrap metal to build rebar, and will be equipped with electric ovens. Production is estimated at 100,000 tons of steel a year. Monteforno's head office is at Feriere di Stabio, Stabio, Switzerland. Attn: Mr. Marzorati.

AUSTRIA—The Director General of the Federal Power Co. (Verbundgesellschaft) announced that the Austrian authorities are considering construction of **three nuclear power plants** within the next two decades, in addition to the plant presently under construction at Zwentendorf. According to present plans, these plants will have a capacity of about 1,000 megawatts each and are to begin operating approximately in 1980, 1985 and 1990. The nuclear power plant scheduled for completion about 1980 will probably be located either on the lower course of the Enns River or in the Danube valley near the discharge of the Enns River. For the other two nuclear power plants, to be completed in 1985 and 1990, locations in the valleys of the Danube and Inn Rivers are under consideration. Currently all agencies responsible for electricity supply in Austria are now discussing the form of organization to be formed to erect the second and probably further plants of this kind.

INDIA—The Government of India proposes to establish through its state-owned Oriental Gas Co. a **coal based gas generating plant** at an estimated cost of $3.3 million, of which the foreign exchange component would be $1 million. This proposal is still in a preliminary stage, and details on specifications, import requirements, and other points have not yet been worked out. Interested U.S. firms should contact: M. Dey, administrator, Oriental Gas Co., 12-A Park St., Calcutta 700016.

SWEDEN—The City of Gothenburg is planning a **multi-phased, multi-year construction project** described as **Ostra Nordstan**, or East Northtown. This major project has been underway for sometime; however, it has been designed with phases of construction through 1974 and beyond. Developments after 1974 are still on the drawing boards. Following projects and phases offer opportunities to U.S. suppliers: Phases 1 and 2 office premises; Phases 3 and 5 office building/hotel/commercial premises programmed for 1972 and 1973; Phases 4 and 6 bank and commercial office premises programmed for 1973 and 1974. U.S. firms interested in obtaining further information on any phase may contact Louis Campanello, Managing Director of Development, Administration of the City of Gothenburg, P.O. Box 2258, S-403 14 Gothenburg 2.

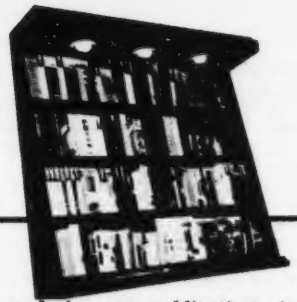
AUSTRALIA—The Queensland Government has announced that a consortium of companies will develop a **multi-million dollar coking coal deposit** at Hail Creek, 60 miles southwest of Mackay. The open cut project will involve the building of a new coastal port capable of handling 100,000-ton bulk carriers, a new 85-mile railroad line, and a new town to accommodate 1,900 people. The Bowen Basin coal field in which the development is situated has indicated reserves of 5,000 million tons of coking coal and 2,000 million tons of steaming coal. The company planning the development of the Hail Creek deposit is Hail Creek Asso., Brisbane. Attn: Ray J. Hardy, project engineer. The company has virtually completed feasibility studies and is now negotiating contracts and considering plant and equipment. Estimated company costs of the projects are $178-$202 million. The company is considering the purchase of heavy duty open-cut mining equipment such as draglines, off-highway hauling equipment, coal washing plants and loaders, and is most interested in U.S. engineering services and equipment, especially if Eximbank finance should be forthcoming.

PARAGUAY—The Ministry of Public Works has been asked by the Paraguayan National Council for Economic Coordination to prepare documents and technical specifications on which to base a possible call for international bidding on the construction of **a new terminal at Presidente Stroessner International Airport** in Asuncion. Estimated cost of the project is $5 million. Interested U.S. firms should, if possible, prepare package offers, including both construction and arrangements for financing. Firms should contact: Excmo. Senor Ministro, General de Division Don Marcial Samaniego, Ministerio de Obras Publicas y Comunicaciones, Calle General Diaz y Alberdi, Asuncion. Copies of communications should also be sent to: Mayor Dem, Edgar Usher, Director General, Direccion General de Aeropuertos Civiles, a/c Ministerio de Defensa Nacional, Avenida Mariscal Lopez, Asuncion, and Ing. Juan H. Pettengill, Director General, Direccion General de Vialidad, a/c Ministerio de Obras Publicas y Comunicaciones, Calle General Diaz y Alberdi, Asuncion.

SENEGAL—The World Bank has agreed in principle to fund Senegal's proposed **$85 million super tanker repair facility** near Dakar. The proposal calls for construction of two dry docks capable of handling vessels of up to 350,000 and 500,000 tons, respectively, with a possible additional dock for up to one-million-ton ships, during an as yet unspecified third phase. The drydocks and related facilities would be located at Thiaroye, around the inner curve of the bay between Dakar and Rufisque.

NEW ZEALAND—The Government approved the installation of **two gas turbines and generators** to provide an additional 100 megawatts output to the Otahuhu gas turbine power station near Auckland. The new plant, estimated to cost nearly $14 million, is expected to be producing in April 1976. Contact: Government of New Zealand, Minister of Electricity, Mr. Gandar, Wellington.

JAMAICA—**Kingston Waterfront Redevelopment Plan** continues, and a review of its progress to date and information on proposed activities through 1975 is available from the U.S. Department of Commerce, Trade Opportunities Section, BIC-267, Rm. 4813, Washington, D.C. 20230. Contacts for this project are: Gloria Knight, Secretary-Manager, Kingston Waterfront Development, 40 Harbour St., Kingston, and David Gregory Jones, Architect for Urban Development Corp., 1-3 King St., Kingston.



New Publications

When ordering any publications, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

OFFICE OF THE SECRETARY

OFFICE OF MINORITY BUSINESS ENTERPRISE

Progress report—the minority business enterprise program: 1972. October 1972. 32pp. $1. This report gives information on programs supporting minority-owned businesses.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF COMPETITIVE ASSESSMENT AND BUSINESS POLICY

Printing and publishing. Vol. 13, No. 4. Annual subscription $1 (25¢ more for foreign mailing). Single copy 25¢.

Construction review. Vol. 18, No. 10. Monthly industry report. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 55¢.

BUREAU OF INTERNATIONAL COMMERCE

International Marketing Information Service

Exhibitor's Export Market Guide

U.S. audio-visual equipment firms aim at untapped Australian market (IMIS 72-043). 4pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 more for foreign mailing). Single copy 15¢.

Special requirements on imports into Canada (OBR 72-065). 24pp.

Foreign trade regulations of the Republic of Ghana (OBR 72-068). 8pp.

Foreign trade regulations of Canada (OBR 72-069). 26pp.

SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION

BUREAU OF THE CENSUS

Small area data notes. November 1972. Vol. 7, No. 11. 12pp. 10¢. This publication covers a wide range of topics of interest to users of small-area data at the State, region, county and city levels. With the January 1973 issue, it will be sold in combination with **Data Access Descriptions** at an annual subscription price $5.50 per year.

Construction and Housing

Housing starts: 1959 to 1971 (C-20 Supplement). 80pp. $1.25.

Value of new construction put in place: October 1972 (C30-72-10). 28pp. Annual subscription, including monthly and annual supplement, $2.50. Single copy 25¢.

Residential alterations and repairs—expenditures on residential additions, alterations, maintenance and repairs, and replacements: third quarter 1972 (C50-72-03). 12pp. Annual subscription, including 2-part annual report, $1.50. Single copy 25¢.

Distribution and Services

Monthly department store sales in selected areas: October 1972 (BD-72-10). 10pp. Annual subscription $1. Single copy 10¢.

Monthly retail trade—sales and accounts receivable: October 1972 (BR-72-10). 34pp. 25¢.

Monthly wholesale trade—sales and inventories: October 1972. (BW-72-10). 20pp. Annual subscription $1.50 (50¢ more for foreign mailing). Single copy 15¢.

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for week ending December 9 (CD-72-290). 2pp. 10¢.

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for week ending December 16 (CB-72-295). 2pp. 10¢.

Monthly department store sales in selected areas: October 1972 (BD-72-10). 10pp. Annual subscription $1. Single copy 10¢.

Foreign Trade

General imports — cotton manufactures: October 1972 (FT 130-72-10). 8pp. Annual subscription $1. Single copy 10¢.

Exports — commodity by country: September 1972 (FT 410-72-9). 500pp. Annual subscription $33 ($8.25 more foreign mailing). Single copy $2.75.

Airborne exports and general imports: September 1972 (FT 986-72-9). 4pp. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Puerto Rico and U.S. possessions: August 1972 (FT 800-72-8). 26pp. Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 20¢.

Governments

State tax collections in 1972 (GF72 No. 1). 44pp. 75¢.

Industry

Annual survey of manufactures: 1971 (M71(AS)-2). Value of product shipments. 42pp. 50¢. This report contains estimates of the value of product shipments during 1971 for approximately 1,100 classes of manufactured products for which information was obtained in the 1971 Annual Survey of Manufactures. Quantity figures are also shown for selected classes of products.

Selected electronic and associated products: 1971 (Series: MA-36N(71)-1). 34pp. 25¢.

Population

Current Population Reports issued in series P-20 P-23, P-25, P-26, P-27, P-28 (summaries only), P-60, and P-65 are sold as a single consolidated subscription at $14 per year ($3.50 more for foreign mailing).

Projections of the population of the United States, by age and sex: 1972 to 2020 (Series P-25, No. 493). 28pp. 35¢.

1970 Census of Population

Detailed Characteristics

Arkansas (PC(1)-D5). 576pp. $3.50.

Massachusetts (PC(1)-D23). 684pp. $4.75.

Wisconsin (PC(1)-D51). 638pp. $4.75.

Transportation

1972 Census of Transportation

These reports present data based on the 1972 Truck Inventory and Use Survey. A report is issued for each of the 50 States, the District of Columbia, and the United States as a whole (U.S. Summary).

Alabama (TC72-T1). 24pp. 35¢.

Arkansas (TC72-T4). 24pp. 35¢.

Pennsylvania (TC72-T39). 24pp. 35¢.

West Virginia (TC72-T49). 24pp. 35¢.

SCIENCE AND TECHNOLOGY

NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

Environmental Research Laboratories

Earthquake information bulletin. Vol. 4, No. 6. Annual subscription $1.50 (50¢ more for foreign mailing). Single copy 30¢.

Doppler spectrum analysis using a minicomputer (ERL 241-AL 7). 68pp. $1.25.

A plasmasphere sounder satellite (ERL 242-AL 8). 32pp. 55¢. A satellite with a radio sounder is an excellent measuring tool for studying the structure and dynamic behavior of the plasmasphere and its abrupt outer boundary, the plasmapause.

NATIONAL BUREAU OF STANDARDS

Standard reference materials: preparation and use of superconductive fixed point devices, SRM 767 (Spec. Publ. 260-44). 36pp. 75¢.

Federal information processing standards publication—synchronous signaling rates between data terminal and data communication equipment (FIPS PUB 22). Nov. 1, 1972. 4pp. 15¢.

Brief history of measurement systems (Spec. Publ. 304A). Revised October 1972. 4pp. 25¢. Includes two-page, full color chart. A full-scale wall chart is also available.

Model state unit pricing regulation: 1972. As adopted by the National Conference on Weights and Measures (December) 1972. 8pp. Copies of this publication are available from: Office of Weights and Measures, National Bureau of Standards, Washington, D.C., 20234.

Thermophysical properties of helium-4 from 4 to 3000R with pressures to 15000 psia (Tech. Note 622). 144pp. $1.25.

Invariance of the cross ratio applied to microwave network analysis (Tech Note 623). 26pp. 35¢.

An evaluation of several cryogenic turbine flowmeters (Tech. Note 624). 90pp. $1. The National Bureau of Standards (NBS) and the Compressed Gas Association (CGA) have jointly sponsored a research program on cryogenic flow measurement. A cryogenic flow research facility was constructed and has been used to evaluate cryogenic flowmeters operating on several different principles.

Matches and lighters in flammable fabric incidents: the magnitude of the problem (Tech. Note 750). 28pp. 55¢.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

The national drug code directory magnetic tape extract has been updated to include drug product information supplied to the Food and Drug Administration through October 1972 by drug firms cooperating in the implementation of the National Drug Code (NDC) System. The tape includes information on approximately 26,000 drug products marketed by 432 firms. Each drug product is assigned a 9-character code. In the NDC tape, codes are associated with the labeler (manufacturer, repackager, or distributor), product name and its associated strength, dosage form, legal status, and trade package size. The codes can be used for drug product identification, accumulation of drug utilization data, drug billing, inventory control, automated drug ordering procedures, and in prescription claim processing. Furnished with the tapes are descriptions of the tape layout and formats for each of the four basic card types which appear in the tape extract. Order:

National drug code directory (PB-212 755) (supersedes PB-210 338). $55.00, 1 reel. Please specify tape recording mode desired: (1) 7-track, 556 or 800 BPI, odd or even parity, or (2) 9-track, 800 BPI, odd parity. Paper copy of the directory can be obtained from Superintendent of Documents, GPO, Washington, D.C. 20402, Catalog No. HE 20.4012:971, $4.25 per copy.

Multi-access computing in the 70s: an overview of research and requirements (AD-751 612). System Development Corp., Santa Monica, Calif., paper copy $9, 391pp. Papers presented at a symposium held at Santa Monica, Calif., November 1971.

Natural disasters operations planning for slowly developing disasters. Vol. I (AD-749 032). Institute for Defense Analyses, Arlington, Va., 105pp.

The effects of alcohol on performance in a driving simulator of alcoholics and social drinkers (PB-211 907). University of California, Los Angeles, Calif., paper copy $4.85, 79pp.

An evaluation of manpower services and supportive services to American Indians on reservations (PB-213 030). American Indian Consultants, Scottsdale, Ariz., paper copy $6.75. 216pp.

The following reports concerning the political and economic future of Red China as determined by changes in leadership and governmental structures are available:

The nature of mainland Chinese economic structure, leadership and policy (1949-1969) and prospects for arms control and disarmament. Vol. I: summary (AD-750 619). Columbia University, New York, N.Y., 13pp.

Same title, **Vol. II: basic report** (AD-750 620). Paper copy $6.75, 241pp.

Energy, resources and the environment (PB-213 031). Mitre Corp., McLean, Va., paper copy $3.75, 40pp. Contains a substantive summary of eight symposia sponsored by the Mitre Corporation on the interrelationships of energy, resources, and the environment during the period July 1971 to July 1972.

Aircraft noise impact—planning guidelines for local agencies (PB-213 020). Wilsey and Ham, South Pasadena, Calif., paper copy $6.75, 254pp. Includes aircraft EPNL contours, method of finding Noise Exposure Forecast (NEF) level for a given location, analysis of sound insulation, and annotated bibliography.

Success prediction (AD-751 850). Defense Documentation Center, Alexandria, Va., 893pp. DDC bibliography (with abstracts) containing 145 references to reports on the development of individuals during training; peer evaluations; biographical inventory scores; and validity of tests which can be used as predictors of success. All reports listed are available from the National Technical Information Service (NTIS).

Japanese national security policy—domestic determinants (AD-751 031). Rand Corp., Santa Monica, Calif., 91pp.

Transportation systems technology: a twenty-year outlook (PB-213 012). Transportation Systems Center, Cambridge, Mass., paper copy $6, 195pp.

Fifth report on the High Speed Ground Transportation Act of 1965 (PB-212 694). Secretary of Transportation, Department of Transportation, Washington, D.C., 200pp.

The Entrepreneurial Development Training Center (COM-72-11304). Entrepreneurial Devel. Train. Cent., Philadelphia. 111pp. Describes management and entrepreneurial courses for minority groups.

Standardization of automotive diagnostic systems (PB-212 471). National Motor Vehicle Safety Advisory Council, Washington. 429pp. $6. Proceedings of the First International Congress on Automotive Safety, held in San Francisco July 17-19. Topic areas include system concepts, candidate automotive systems for diagnosis, diagnostic techniques, standardization of automotive diagnostic systems, and future diagnostic programs.

Annotated bibliography on Great Lakes hydrology (PB-212 251). U. of Illinois. 68pp. $4.50.

Tax credit for wages paid to workers hired from WIN or welfare rolls—special personnel policies forum survey (PB-212 222). Bureau of National Affairs, Washington. 21pp.

Multi-access computing in the 70s: an overview of research and requirements (AD-751 612). Systems Development Corp., Santa Monica. 391pp. $9. Papers presented at a November 1971 symposium in Santa Monica.

Materials and interface factors limiting LSI performance and reliability (AD-750 577). Hughes Aircraft, Culver City, Cal. 45pp. $6. Surveys material, chemical, physical, metallurgical, and electrical effects in large scale integrated circuits (LSI) and other semiconductor devices. Material transport phenomena, thermochemical and electrochemical effects, properties of metallization systems for semiconductor devices, and semiconductor surface effects as they affect device performance and reliability are discussed.

Rear-end structural crashworthiness of perimeter frame vehicles: design development and verification (PB-212 594). Dynamic Science, Phoenix, Ariz. 294pp.

The pre-retirement years: a longitudinal study of the labor market experience of men, vol. III (PB-212 637). Ohio State U. 152pp. Third progress report on a five-year longitudinal study of the labor market experience of a national sample of middle-aged men. Report describes magnitude and patterns of change in status of respondents that have occurred during the first three years of the study and identifies some of the causes and consequences of the changes. Also available are PB-180 530 — **The pre-retirement years: a longitudinal study of the labor market experience of the cohort of men 45-59 years of age, vol. I** (previously announced). 303pp. $6. and PB-192 671— **The pre-retirement years: a longitudinal study of labor market experience of men,** vol. II (previously announced). 122pp.

Success prediction (AD-751 850). Defense Documentation Center, Alexandria, Va. 183pp. Bibliography (with abstracts) containing 145 references to reports on the development of individuals during training; peer evaluations; biographical inventory scores; and validity of tests which can be used as predictors of success. All reports listed are available from NTIS.

Acreage limitation in the Federal Reclamation Program (PB-211 840). National Water Commission, Arlington. 326pp. $9. Reviews performance of the excess land provisions of the Reclamation Act of 1902, limiting irrigable farm size to 160 acres on Reclamation project lands. Recommendations to reform the acreage limitation based on the cost-size, social welfare, and outright abandonment arguments are reviewed and new recommendations are made.

Identifying on-the-job behavioral manifestations of drug abuse: a guide for work supervisors (PB-211 731). Mobilization for Youth, New York. 65pp. $4.50.

Paint technology and air pollution: a survey and economic assessment (PB-210 736). National Environmental Research Center, Research Triangle Park, N.C. 49pp. $2.35. Discusses technical developments within the paint industry, characteristics of pollutant attacks on exterior paints, and the annual cost of pollution damage to these paints.

OFFICE OF TELECOMMUNICATIONS

Prototype annular slot antenna measurements (OT/TRER 36). 48pp. 50¢. The final prototype annular slot antenna has been fabricated and its performance measured, thus ending a 2.5 year design and measurement study of vertically polarized, buried UHF antennas. Pre-prototype antenna performance was also measured and is presented here.

☆ U.S. Government Printing Office: 1973—511-344/13

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